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**U.S. ARMY-BAYLOR UNIVERSITY
GRADUATE PROGRAM IN HEALTH CARE ADMINISTRATION**

**A STUDY OF THE IMPACT OF MANAGED CARE ON THE FORMATION
AND DEVELOPMENT OF REGIONAL MENTAL HEALTH SERVICES FOR
DARNALL ARMY COMMUNITY HOSPITAL,
GREAT PLAINS REGIONAL MEDICAL COMMAND,
TRICARE REGION VI**

**GRADUATE MANAGEMENT PROJECT
SUBMITTED TO THE FACULTY OF BAYLOR UNIVERSITY
IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR
MASTER OF HEALTH ADMINISTRATION**

**BY
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FORT HOOD, TEXAS
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ABSTRACT

Fort Hood Medical Department Activity, Fort Hood, Texas, is the largest community hospital in the Army. One of the hospital's missions is to provide healthcare to a population which has experienced a 30% growth of active duty and non-active duty personnel from 1990 to 1995; for a total of 147,400 beneficiaries. A collaborative program was needed to effectively meet the behavioral health needs of the largest troop concentration in the Army, their families, and the beneficiaries in the surrounding communities. The need to provide quality care, reduce stress, teach coping skills, and prevent life-threatening behavioral incidents is immanent to sustaining active duty forces, families, and eligible beneficiaries.

Darnall Army Community Hospital has one of largest behavioral health programs in the United States Army. A review of the CHAMPUS budgetary history, fiscal years 1990 - 1995, revealed that CHAMPUS inpatient and outpatient psychiatry costs averaged 48% of the total hospital CHAMPUS budget for the 6 years. In conjunction with the start of the 1992 Department of Defense "Gateway to Care" program, a contracted inpatient psychiatry unit opened at the hospital. In 2 years \$5.6 million CHAMPUS dollars were recaptured and at the end of fiscal year 1995, \$11.3 million, a 56% savings, relative to 1990, had been realized.

Evaluating a complex managed mental healthcare program is a benefit to patients, payers, providers, and commanders. Benchmarking and quantifiable performance measures provide the necessary metrics for an organization to trend practice standards and

self-assess. While there is no standard packaged product that ensures delivery of efficient, cost effective, and adequate mental or behavioral health services, there are researched methods to evaluate and assess a program's practices and performance. Information concerning Darnall's mental health program development and performance will aid in the development of other similar programs within the Army Medical Command.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	I
ABSTRACT	ii
LIST OF FIGURES	v
LIST OF TABLES	vii
LIST OF ABBREVIATIONS	viii
CHAPTER	
1. INTRODUCTION	1
Conditions Which Prompted the Study	3
Managing Mental Health	5
CHAMPUS	7
Statement of the Problem	21
Literature Review	22
Purpose	27
2. METHODS AND PROCEDURES	30
Research Questions	33
3. RESULTS	40
Evaluation Criteria	42
Discussion	44
4. CONCLUSION	50
5. APPENDIX	52
6. BIBLIOGRAPHY	60

LIST OF ILLUSTRATIONS

Figure

1. CHAMPUS Inpatient and Outpatient Care	11
2. FY 90 - Outpatient Services	12
3. FY 91 - Outpatient Services	12
4. FY 92 - Outpatient Services	13
5. FY 93 - Outpatient Services	13
6. FY 94 - Outpatient Services	14
7. FY 95 - Outpatient Services	14
8. FY 90 - Inpatient Services	15
9. FY 90 - CHAMPUS Inpatient Psychiatry Costs (Breakout by Type)	15
10. FY 91 - Inpatient Services	16
11. FY 91 - CHAMPUS Inpatient Psychiatry Costs (Breakout by Type)	16
12. FY 92 - Inpatient Services	17
13. FY 92 - CHAMPUS Inpatient Psychiatry Costs (Breakout by Type)	17
14. FY 93 - Inpatient Services	18
15. FY 93- CHAMPUS Inpatient Psychiatry Costs (Breakout by Type)	18
16. FY 94 - Inpatient Services	19
17. FY 94 - CHAMPUS Inpatient Psychiatry Costs (Breakout by Type)	19
18. FY 95 - Inpatient Services	20
19. FY 95 - CHAMPUS Inpatient Psychiatry Costs (Breakout by Type)	20
20. DACH Inpatient Psych Costs per Capita for AD and Eligible Beneficiaries	34

21. Comparison of CHAMPUS InPt Costs vs DACH Contract Costs for Child and Adolescents <19	34
22. Inpatient Psychiatry Cost (DACH & Contractor)	36
23. CHAMPUS Inpatient Psych Costs per Capita	36
24. Psychiatry Inpatient Cost Trends vs Outpatient Cost Trends	36
25. Average Cost/InPt Beneficiary and Beds Day and Bed Days/1000	38
26. DACH Beneficiary Population	41
27. CHAMPUS Inpatient Psychiatry Expenditures - FY 90	47
28. CHAMPUS Inpatient Psychiatry Expenditures - FY 91	47
29. CHAMPUS Inpatient Psychiatry Expenditures - FY 92	48
30. CHAMPUS Inpatient Psychiatry Expenditures - FY 93	48
31. CHAMPUS Inpatient Psychiatry Expenditures - FY 94	49
32. CHAMPUS Inpatient Psychiatry Expenditures - FY 95	49

LIST OF TABLES

Table

1. Catchment Area Demographics and CHAMPUS Costs Per Capita	2
2. CHAMPUS Inpatient Psychiatry Census by Type and Average Costs	9
3. CHAMPUS Inpatient Psychiatry Savings	22
4. Example Using Feldman's Formula	32
5. DACH CHAMPUS Inpatient Psychiatry Costs, Bed Days Per 1000, and Average Length of Stay Compared to the NCR	37

LIST OF ABBREVIATIONS

DACH	Darnall Army Community Hospital
DMIS	Defense Medical Information System
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
DoD	Department of Defense
GPRMC	Great Plains Regional Medical Command
HCSR	Health Cost Summary Report
MASS	Medical Analysis Support System
MEDDAC	Medical Department Activity (same as the community hospital)
MTF	Medical Treatment Facility (DoD facilities are commonly referred to as "MTFs")
RAPS	Regional Analysis Population System
RMC	Regional Medical Command
RTC	Residential Treatment Center

CHAPTER 1

INTRODUCTION

Advocates of managed mental health services view the shift to *managed* as a natural evolution and solution; its adversaries consider it a menace. Supporters endorse the customer-designed practice that includes checks and balances such as pre-treatment authorization, case management, utilization review, and quality assessment as means to provide quality patient care. The public's skepticism and cynicism by payers has led to a conscientious adoption of industry standards. Benchmarking and quantifiable performance measures provide the necessary indicators for an organization to trend practice standards and self-assess. At the root of the concern is revenue lost by the private for-profit psychiatric and substance abuse hospitals who made a great deal of money in the 1980s, but went out of business with the advent of managed care in the 1990s. While there is no standard packaged product that ensures delivery of efficient, cost effective, and adequate mental or behavioral health services, there are researched methods to evaluate and assess a program's practices and performance.

Fort Hood Medical Department Activity (MEDDAC), also named Darnall Army Community Hospital (DACH), is the largest community hospital in the Army. One of the hospital's missions is to provide healthcare in an era of downsizing, to a population which, from 1990 to 1995, experienced a 30% growth of active duty and non-active duty personnel; a total of 147,400 beneficiaries in a 40-mile catchment area (Table 1). A collaborative program must be in place to effectively meet the behavioral health needs of

the largest troop concentration in the Army, their families, and the beneficiaries in the surrounding communities. The need to provide healthcare, reduce stress, teach coping skills, and prevent life-threatening behavioral incidents is immanent to sustaining approximately 10% of the Army's active duty forces (DRM, 1996).

Table 1.--Catchment Area Demographics and CHAMPUS Costs Per Capita

Fiscal Year	Active Duty	CHAMPUS Eligible	Non-Active Duty (>65)	Total Beneficiaries	CHAMPUS Cost Per Capita	CHAMPUS Psych* Cost per Capita
1990	38,400	71,715	3385	113,500	\$463	\$240
1991	38,500	85,254	3746	127,500	\$444	\$266
1992	32,000	74,103	4097	110,200	\$387	\$186
1993	42,500	90,377	4723	137,600	\$305	\$130
1994	45,200	94,612	4888	144,700	\$280	\$131
1995	44,700	97,620	5080	147,400	\$237	\$94

Sources: DMIS, RAPS V8.1, MASS, CHAMPUS HCSR

*Includes Inpatient and Outpatient Psychiatry

The providers of mental health services at Darnall Army Community Hospital include psychiatrists, psychologists, social workers, nurse practitioners, and drug and alcohol counselors. This mental health team of clinicians, nurses, and therapists have combined to form the Fort Hood Behavioral Health Services (Schuster and Kern, 1994, 1187). Inpatient care as well as extensive outpatient services are provided for eligible beneficiaries by military, civil service, and contract personnel. Services include crisis intervention, crisis and brief acute inpatient care, outpatient day treatment programs, and routine outpatient care. Through the efforts of the mental health team, with the support of

successive hospital commanders, millions of CHAMPUS dollars have been saved, access to appropriate services and definitive care increased, and the quality of care incrementally improved.

Evaluating a complex managed mental healthcare program is a benefit to patients, payers, providers, and commanders. Information concerning Darnall's mental health program development and performance will aid in the development of other similar programs within the Army Medical Command.

Conditions Which Prompted the Study

Consumerism is a growing movement in our nation. Moloney and Paul stated in a *Grant Watch Essay* that graduate medical education stresses a pathophysiologic process to the exclusion of the social, personal, and even functional dimensions of health and illness. There is a disjuncture between a patient's realities and medicine's realignment in the pursuit of medical advancement (Moloney and Paul, 1991, 269). Media and public information sources have resulted in more people demanding some form of medical intervention. Preventive care information is readily available on prime time television, in tabloids, and on CD Rom. Expectations are developed so that a "cure" is expected for all maladies.

There is a greater demand for treatment centers and individual provider accountability - fiscal and clinical. This is required as much from regulatory agencies as self-imposed tools of quality management. As our country has moved along a technological wave, healthcare costs have escalated to meet the high price of research and

development of new processes and procedures that result in prompt delivery, better outcomes, and access for all. One step beyond the quality-cost-access triangle are other issues such as fiscal arrangements and information services which also affect providers and patients. In order to accommodate the consumer movement, it is predicted a payment system that gives patients a choice among plans, physicians, and hospitals or outpatient programs will be necessary to meet patient demand. In addition, ready access to patient information and education enables or empowers them to make an informed choice of practitioners, facilities, programs, and cost arrangements (Moloney and Paul, 1991, 278). Flexible health plans vary in the type of coverage, inpatient or outpatient, or mix of the two; extent of services; availability of mental health coverage; as well as maternity care, and the flexible plan are commonly found in businesses' benefits plans today. Not only does this option reduce the cost to the young, single, predominantly healthy employee, but it also shares the risk of the health coverage between the health plan, employer, and employee.

Many private and commercial health plans have carved out mental health benefits from standard medical benefits plans (Geraty and Bartlett, 1994, 19; Tommasini, 1994, 9). This has forced mental health providers, from para-professionals to psychiatrists, to develop more definitive program benefits and fall in line with standard medical practice, and not hide behind the veil of "confidentiality". This paradigm shift has shed new light on mental health services, sometimes considered a "cash cow" in healthcare. That is, many plans have allowed care to be approved retrospectively and with little or no case management or review. It was not unusual to read studies where patients frequently

stayed in expensive inpatient treatment programs and “miraculously” recovered as benefits ran out. The controversy continues as case management, peer review, and the amount of care provided, regardless of appropriateness, and other components of managed care are applied to the mental health field. Consequently, behavior health services may be more available to patients who previously avoided help in the past because of the expense of inpatient care.

Managing Mental Health

Anderson and Berlant identify unique factors that add to the complexity of managing mental health (Kongstevant, 1995, 150). These factors include (1) the destigmatization of mental illness and chemical dependency, consequently more people are seeking help for personal problems, (2) the erosion of traditional extended and nuclear family structure, placing new demands of support on mental health services, (3) an increase in the complexity and stress in our society, leading to an increased incidence and expression of mental health and substance abuse symptoms, (4) medication and psychological advances in therapeutic techniques, which has resulted in increased effectiveness in treating disorders, (5) a rise in the number of private hospitals, cheap capital investment, lack of certificate of need laws in some states, and exceptions from DRG regulations, and, (6) an aggressive and sometimes deceiving marketing campaign that is funded by private hospitals and managed care organizations. These last two factors were demonstrated by the aggressive prime time television and radio commercial advertising for care and treatment in residential treatment centers. These centers were

displayed like college dormitories and appealed to adolescents and parents from stressful situations looking for a respite from family problems.

Some of the operational and organizational challenges in mental health include variations in diagnosis, treatment plans, lack of a common language among mental health providers, lack of peer review, case management, and the ability to evaluate outcomes. These changes, which led to industry excesses or trends, have led to or mandated that the delivery and payment of healthcare services needed to be evaluated, monitored, and streamlined. This inevitable paradigm shift was recognized nationally and yet mental health was one of the last healthcare services to accept the evolution to managed care (*Managed Care*, 1994, 24).

The military profession, as well as the lifestyle is filled with constant adaptation and stress. Preparation for war, deployment on training exercises, a myriad of contingency missions or operations other than war, and, for 75% of the Army, maintaining a family. The lack of proximate family is just one of the many challenges facing soldiers and their families. In addition, the military's downsizing has increased competition to attain promotion and retention on active duty.

In military communities, most behavioral health programs have expanded internally or acquired better coordinated civilian care. Hospital social work services or nurse case managers (Ryan, Sherman and Judd, 1994, 965) work closely with military commanders (McCaroll, Orman and Lundy, 1993, 706) and hospital staff to develop programs to support the unique lifestyle and stressors associated with the military. Fort Hood's Behavioral Health Services has expanded the mental health outpatient program, social

work and family advocacy programs as well as initiated unit training with line or field commanders. In addition to the medical staff of the community hospital, a psychiatrist, psychologist, and social worker are assigned to each division level unit,. This places behavioral services closer to the patient to provide outpatient care where the soldier works as well as to be accessible to the leadership of the units.

CHAMPUS

The Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) is a benefits program for all non-active duty military beneficiaries, ages 0 - 64, provided through the Department of Defense (DoD) and appropriated by the United States Congress. Prior to 1989 CHAMPUS was essentially an unmanaged health insurance program that defined the types of mental health services funded, e.g., 2 outpatient visits per week, acute hospitalization, or residential treatment center (RTC) care for patients under 19 years old. It was unmanaged care in that no utilization management was conducted for episodes of healthcare.

Mirroring the civilian sector trends, the CHAMPUS market appropriately responded to liberal guidelines and designed treatment programs and psychiatric care delivery systems which were tailored to maximize patient utilization of these 3 levels of care. The mental health market totally ignored alternatives which were of more clinically appropriate intensity and/or frequency, such as day treatment programs and increased outpatient care and treatment. CHAMPUS appeared to be a bottomless pit of resources. Every year prior to 1990, before the end of the fiscal year, CHAMPUS would routinely

run out of money and outstanding civilian healthcare bills could only be paid by Congressional reappropriation.

In 1989, DoD initiated the “Gateway to Care” or “Coordinated Care” program in an attempt to implement managed healthcare into the Department of Defense healthcare system. The intent was to decentralize the CHAMPUS budget authority and accountability to the hospital commander. Commanders were provided CHAMPUS funds based on prior utilization and were responsible for managing the CHAMPUS expenses for an approximate 40-mile catchment area surrounding the hospital. Patients outside of the ZIP code defined area were not denied access to the facility but were not held to the same set of rules for utilizing CHAMPUS benefits. Patients within the catchment area required a statement of non availability for inpatient care and selected outpatient procedures, from the military treatment facility (MTF), patients outside the area did not. The commander’s incentive was to maximize utilization of the MTF by recapturing CHAMPUS care and providing services in house; thus reducing the CHAMPUS bill. At the time MTFs were led to believe that savings from CHAMPUS recapture programs would be returned to the facility to enhance in-house services.

Table 2 shows the changes in the patient census and costs associated with CHAMPUS inpatient psychiatric care as managed care practices were implemented in the behavioral health services system at Fort Hood Medical Department Activity. In the shaded area is a DoD CHAMPUS statistics for all inpatient psychiatry (for 1993) to compare with Darnall’s statistics.

Table 2.--CHAMPUS Inpatient Psychiatry* Census by Type and Average Costs

FY	RTC	ACUTE < 19	ACUTE > 18	REHAB	TOTAL INPT	AVG COST/PT	AVG COST /BED DAY
90	206	478	360	2	1045	\$19,627	\$397
91	217	393	252	3	865	\$21,915	\$437
92	195	106	59	1	361	\$36,695	\$417
93	166	107	50	1	324	\$29,475	\$429
93	**CHAMPUS national average:					\$16,321	\$645
94	205	150	79	0	434	\$22,128	\$442
95	172	102	60	3	337	\$19,568	\$452

Source: MASS

* CHAMPUS numbers are for DACH's catchment area

** Overall CHAMPUS standard for FY 1993

Fort Hood, Texas, is home to one of largest behavioral health service programs in the United States Army. A review of the CHAMPUS budgetary history extracted from the CHAMPUS Health Care Summary Report (HSCR), fiscal years 1990-1995, revealed that in fiscal years 1990 and 1991 over one-half of all CHAMPUS expenditures were for psychiatric care (Figure 1). The next four fiscal years show psychiatry expenditures at 49% and only slightly lower.

A breakout of DACH catchment area outpatient psychiatry, compared to other CHAMPUS outpatient care is depicted in figures 2-7. Outpatient psychiatry care accounts for 26%-31% of the total outpatient costs, relatively consistent throughout the 6 years, with costs between \$2.6 and \$3 million. Figures 8-19 show CHAMPUS inpatient psychiatry, for the same time frame, ranged from \$19.8 million to \$6.6 million. An additional breakout of psychiatry expenses is shown for each fiscal year by type: residential treatment center (RTC), acute care for adults and adolescents. RTC accounts

for the majority of all inpatient psychiatry care, almost 90% in fiscal year 1995, although the expenses have dropped from \$12.3 million in fiscal year 1990 to \$5.9 million in fiscal year 1995. Acute care for children under 19 years old the most dramatic reduction in costs from 26% of all inpatient services in fiscal year 1990 to 4.5% in fiscal year 1995.

In 1989 Darnall initiated its mental health managed care program with a CHAMPUS cost analysis which was stratified by (1) type of care (outpatient, acute inpatient, residential treatment center, etc.) and (2) demography of patients (age, sex, diagnosis). Acquiring reports such as the CHAMPUS Health Care Summary Report (HCSR), which is based on claims data, was not concurrent but relied upon to trend costs. It was clearly illustrated that there was not a relative need to manage outpatient costs if more effective programs were developed to expand services more appropriate for patient treatment.

On 1 August 1991, DACH implemented the first phase of the mental health managed care system with the startup of a contracted inpatient crisis management/diagnostic unit. This unit essentially became the gatekeeper for inpatient psychiatry services. It was the channeling mechanism to initially assess, then direct the patient to the appropriate type and intensity of treatment within the system (Anderson and Berlant, 1995, 155). Initially the length of stay was set at no more than 7 days and the ward had to meet the same pre-certification criteria that any other CHAMPUS approved facility had to meet. In fiscal year 1995 the average length of stay for the DACH contract CHAMPUS ward was less than 4.5 days (Chaparala, Medical Director, PHP). The

success of Darnall's CHAMPUS cost saving programs are known throughout the Army Medical Command. The parallel expansion of the social work family advocacy program, by 1993, is a model for the Department of Defense (Orman, 1996).

Figure 1.

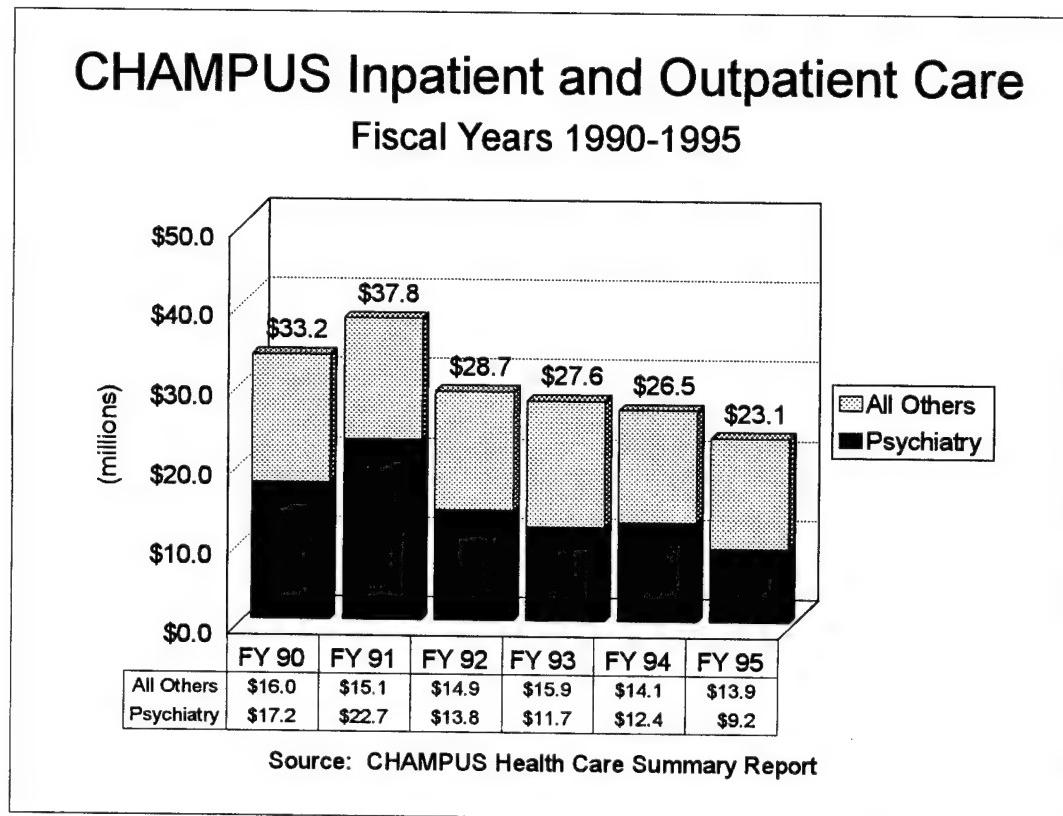


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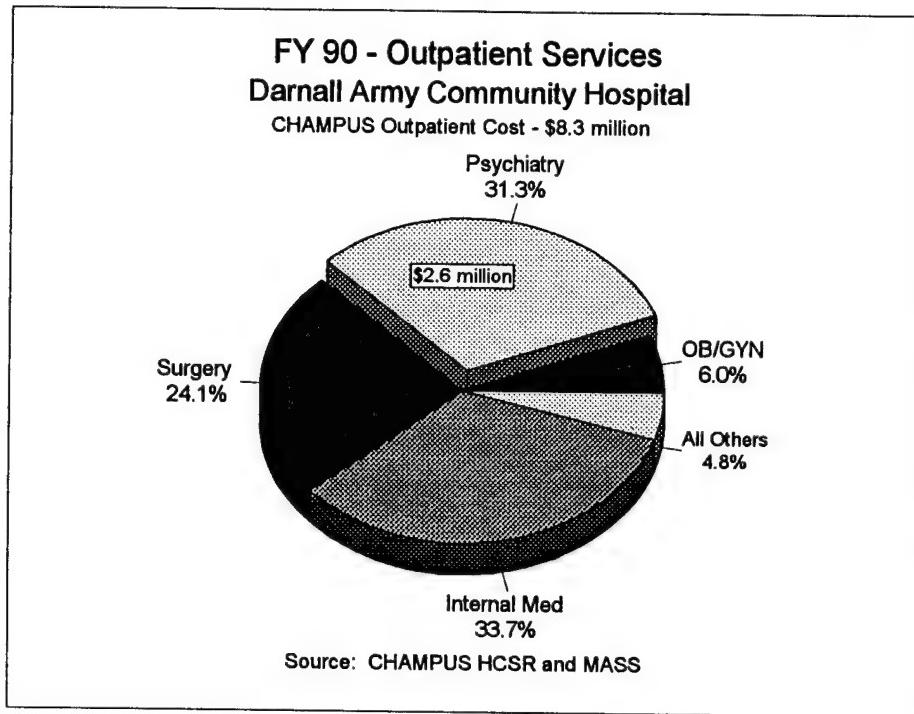


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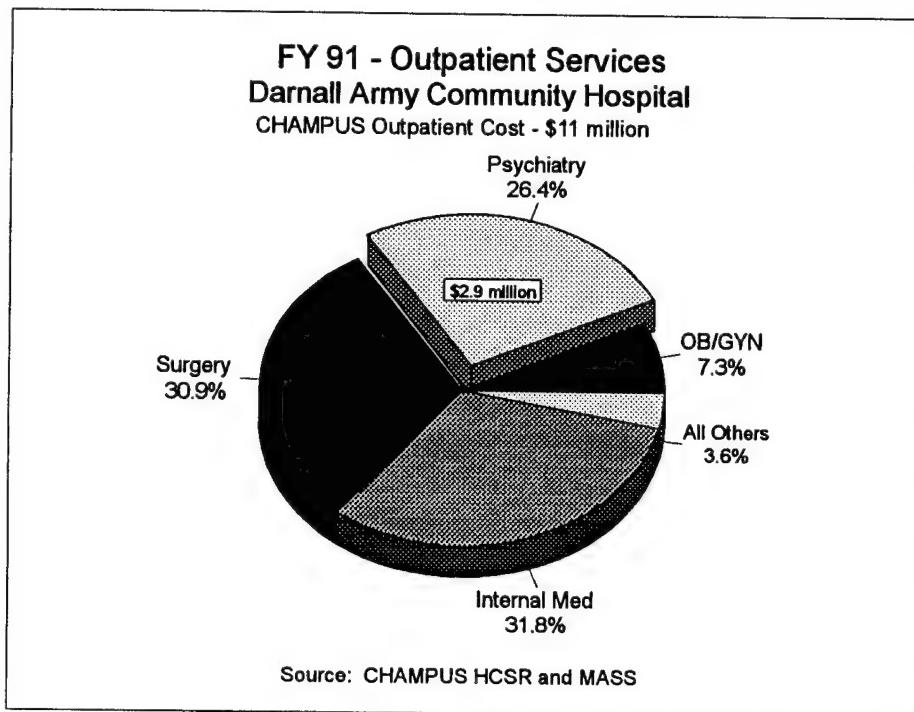


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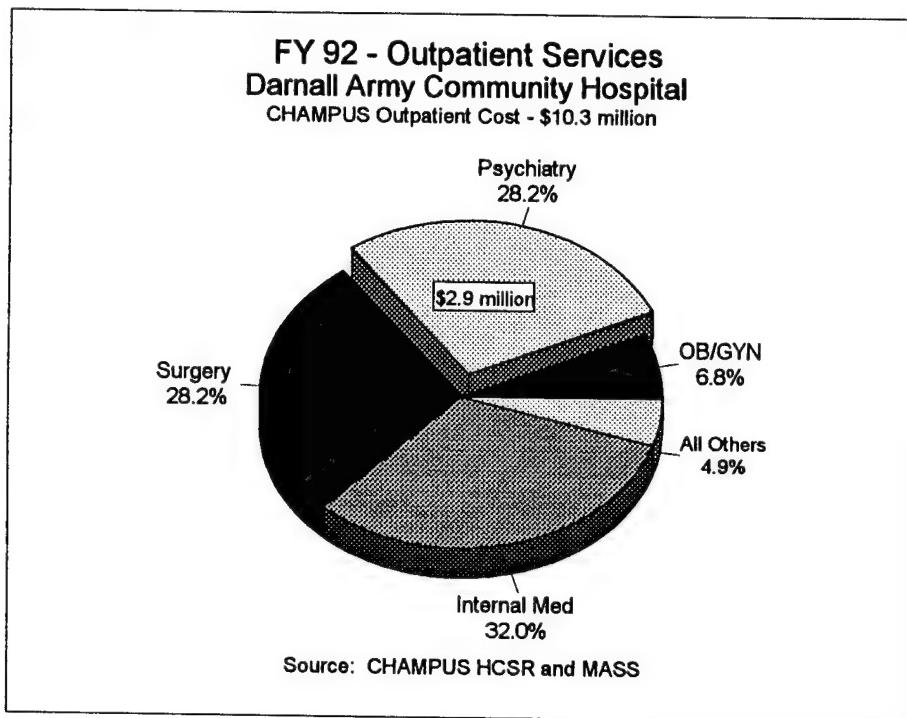


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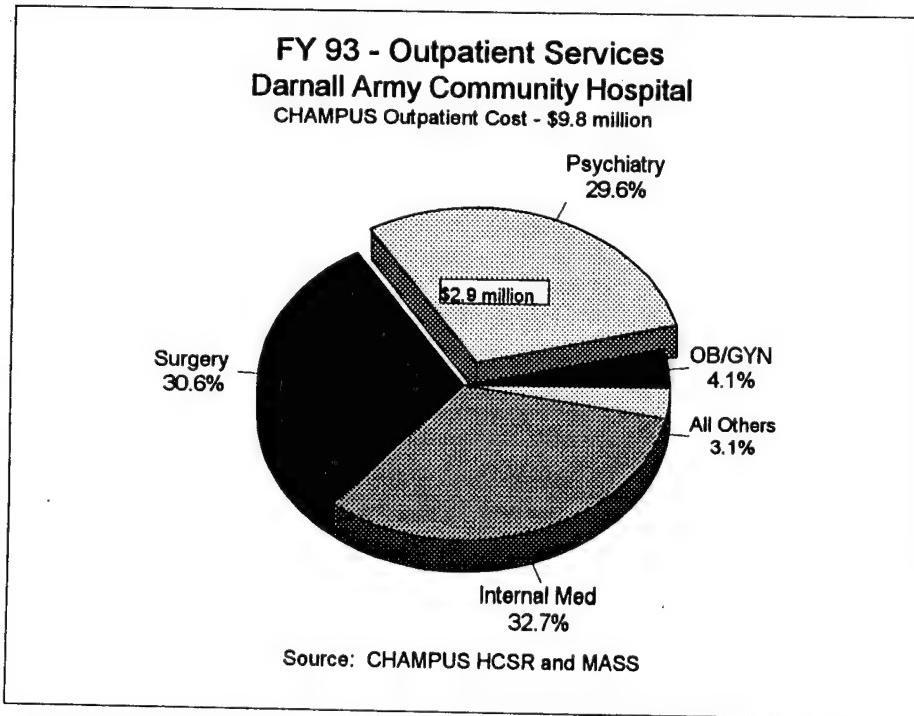


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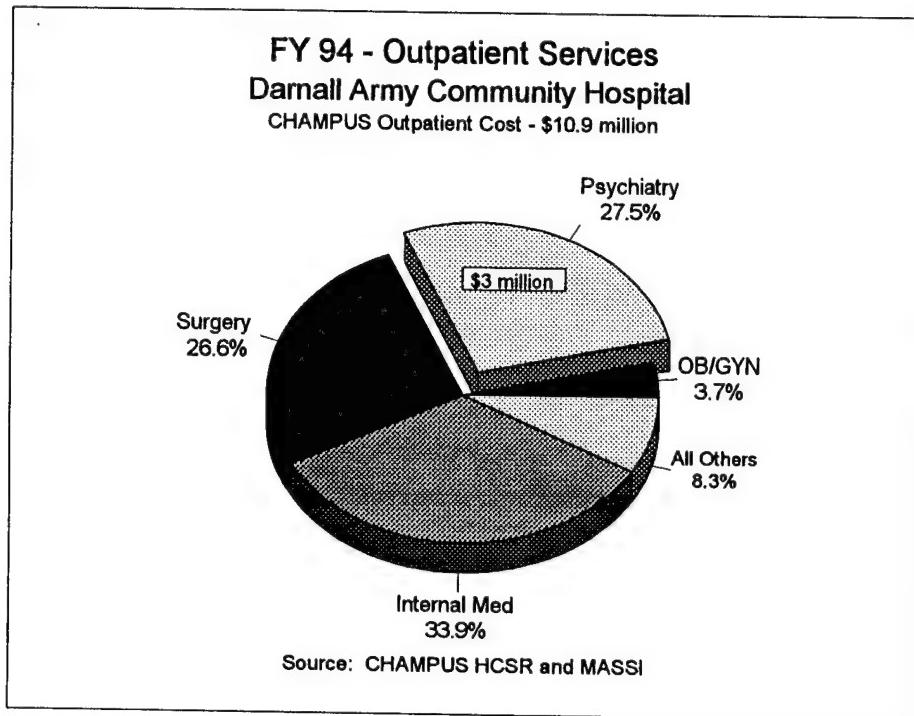


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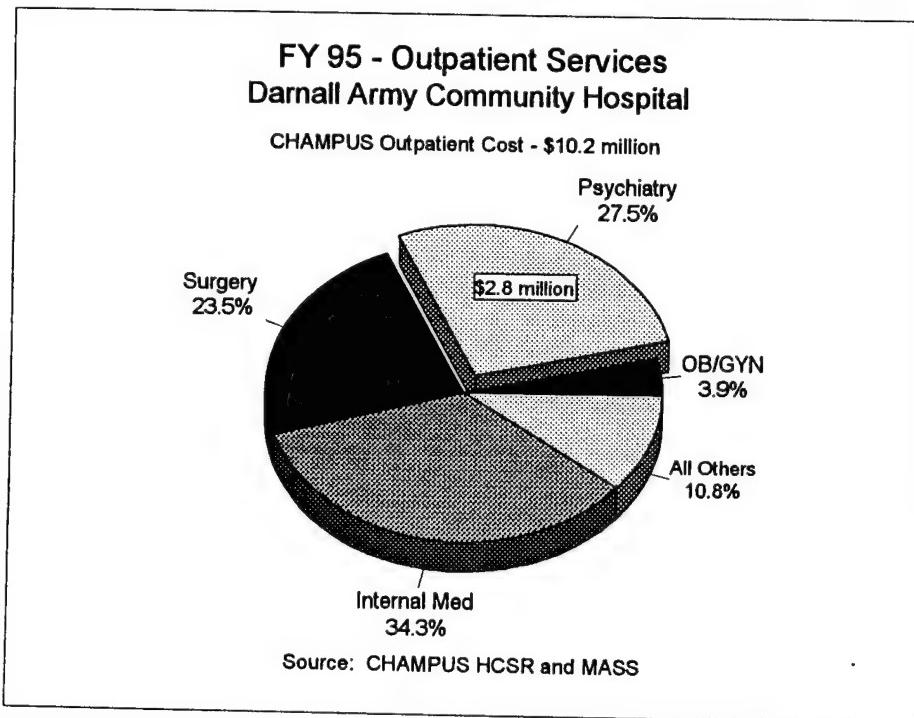


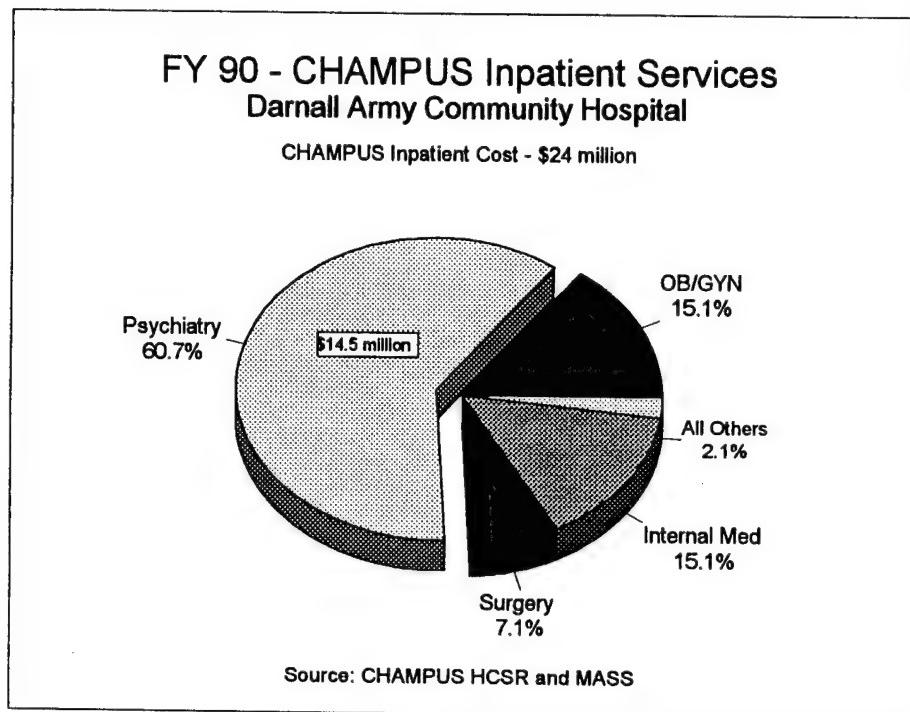
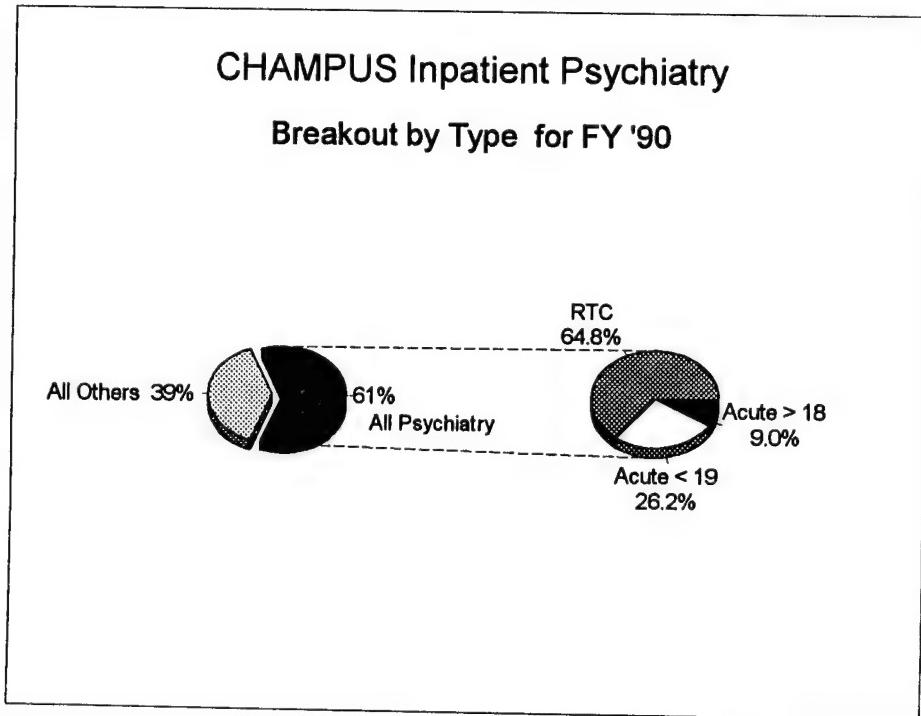
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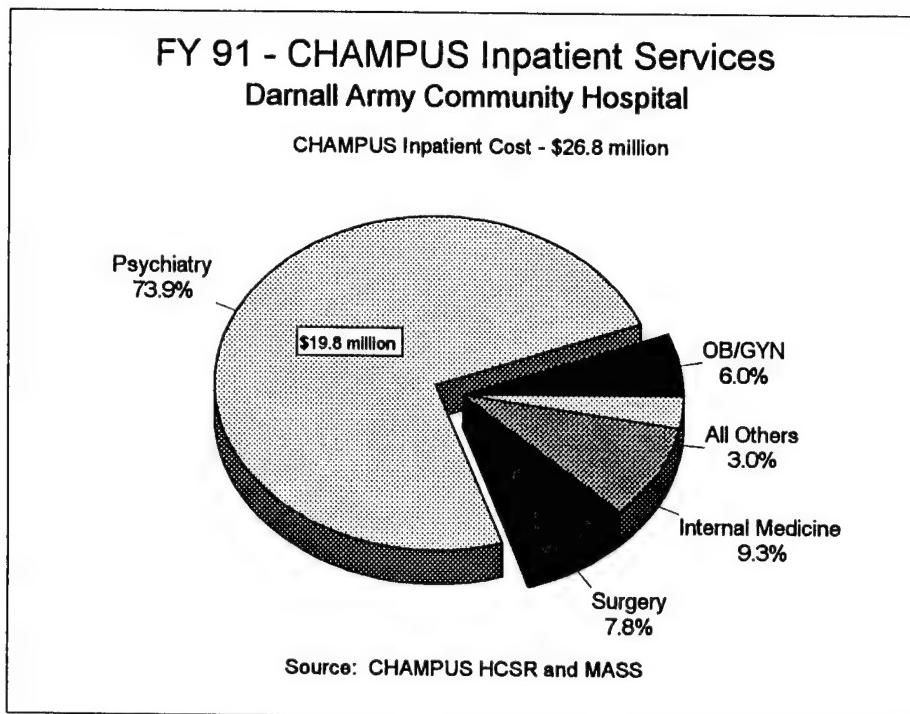


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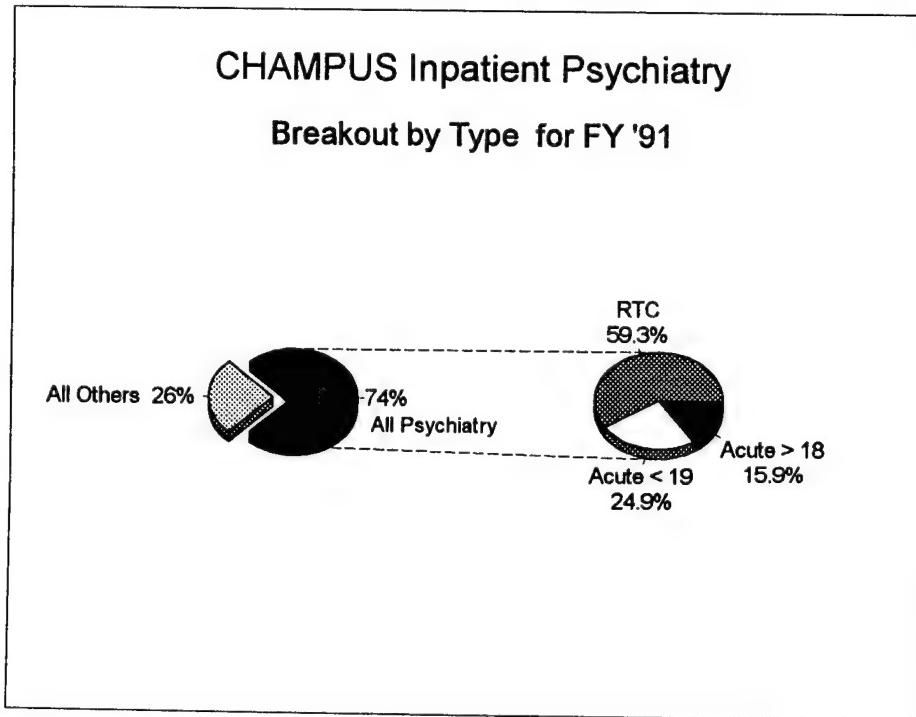


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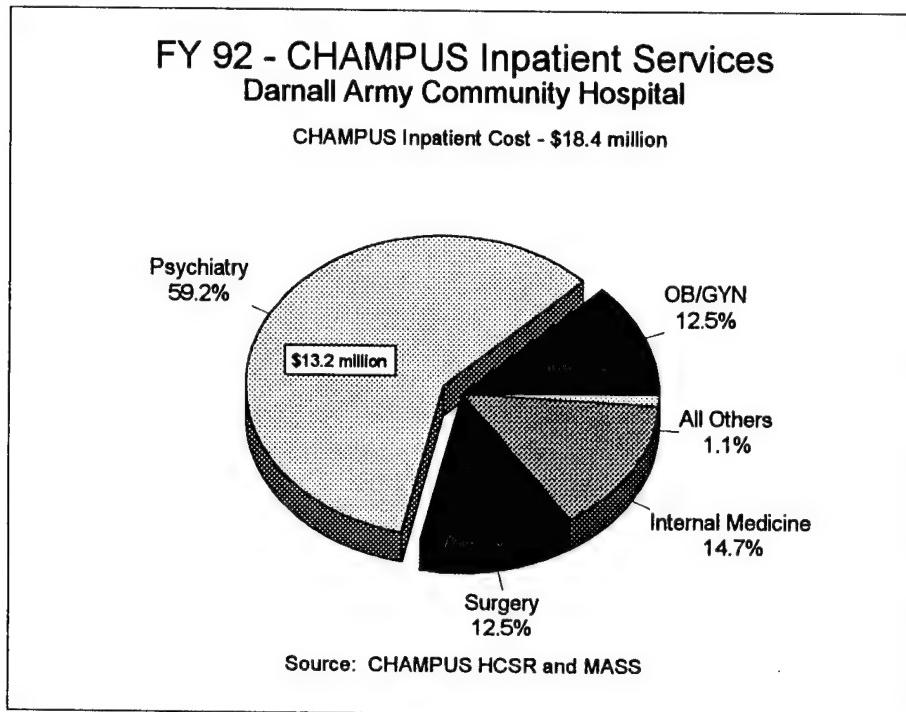


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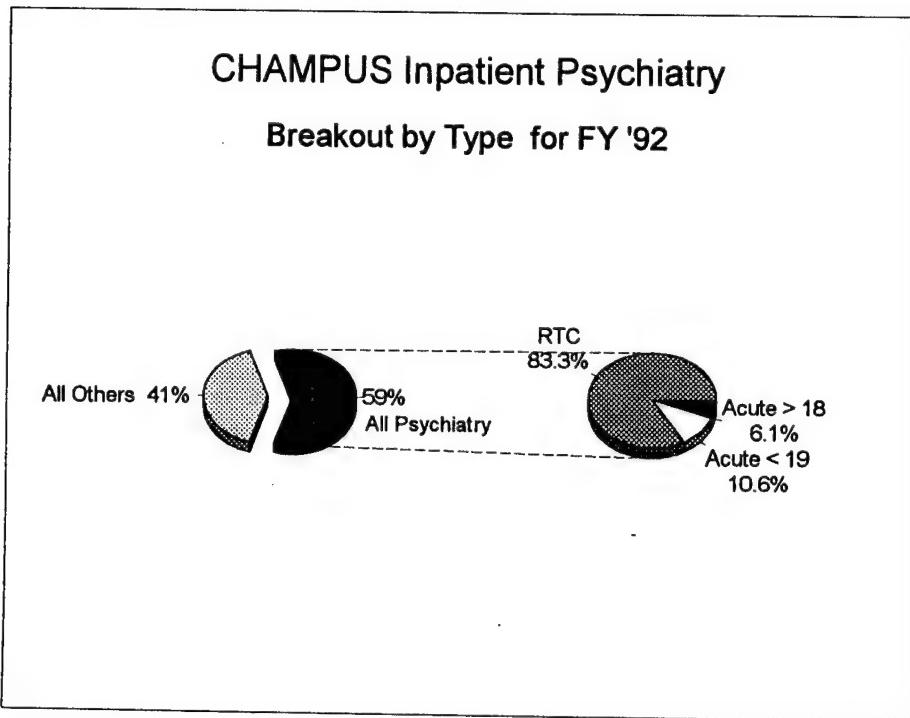


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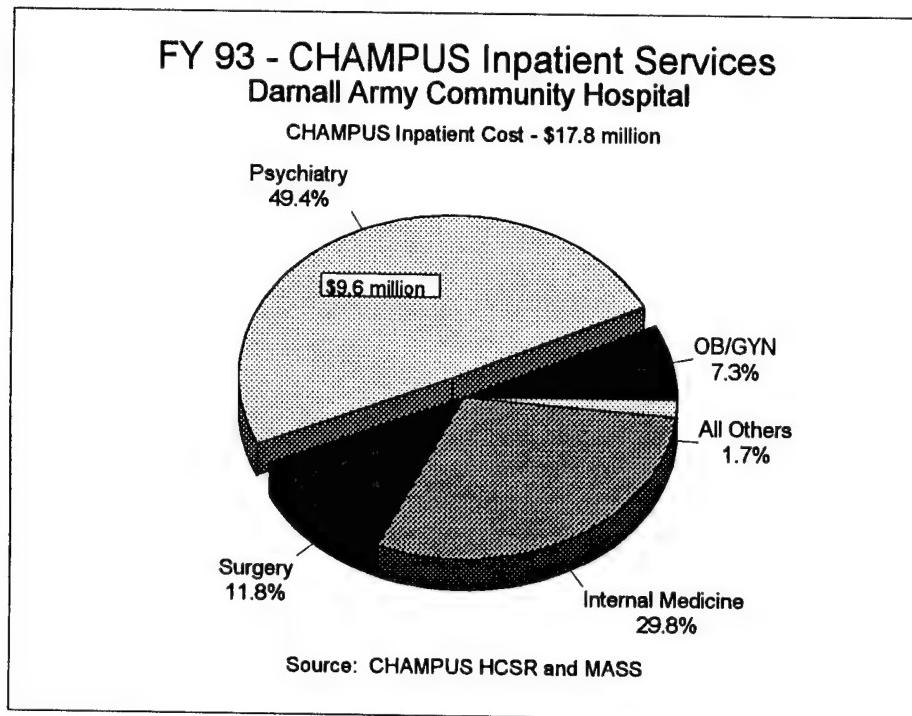


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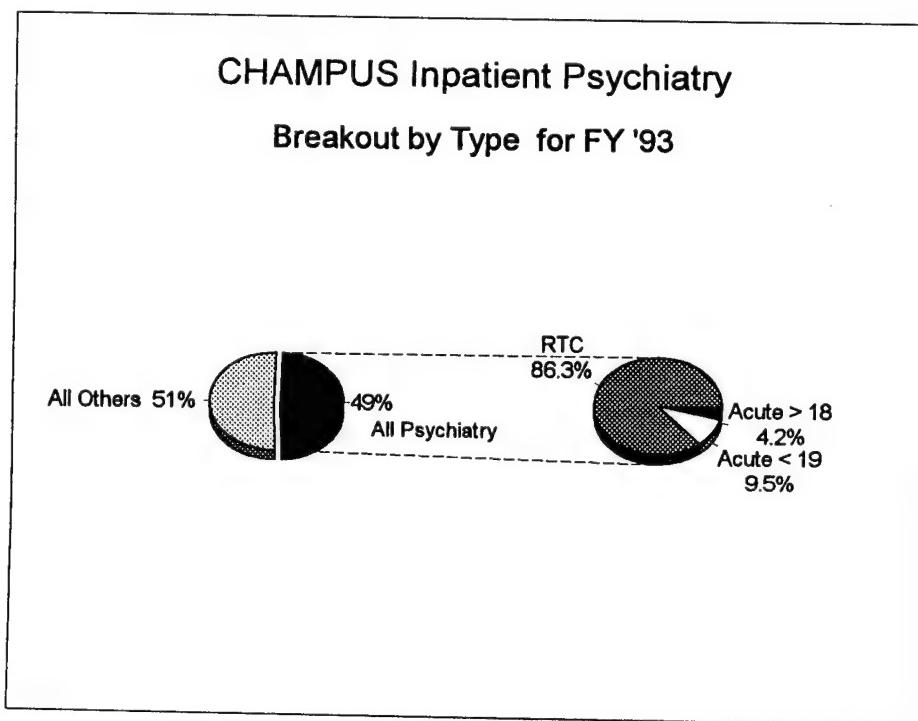


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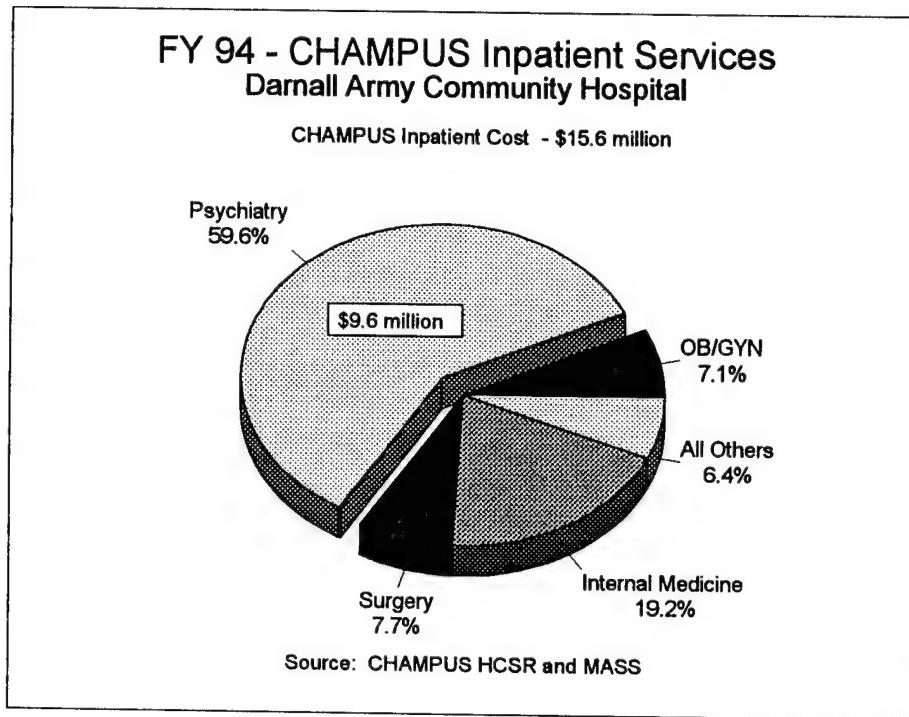


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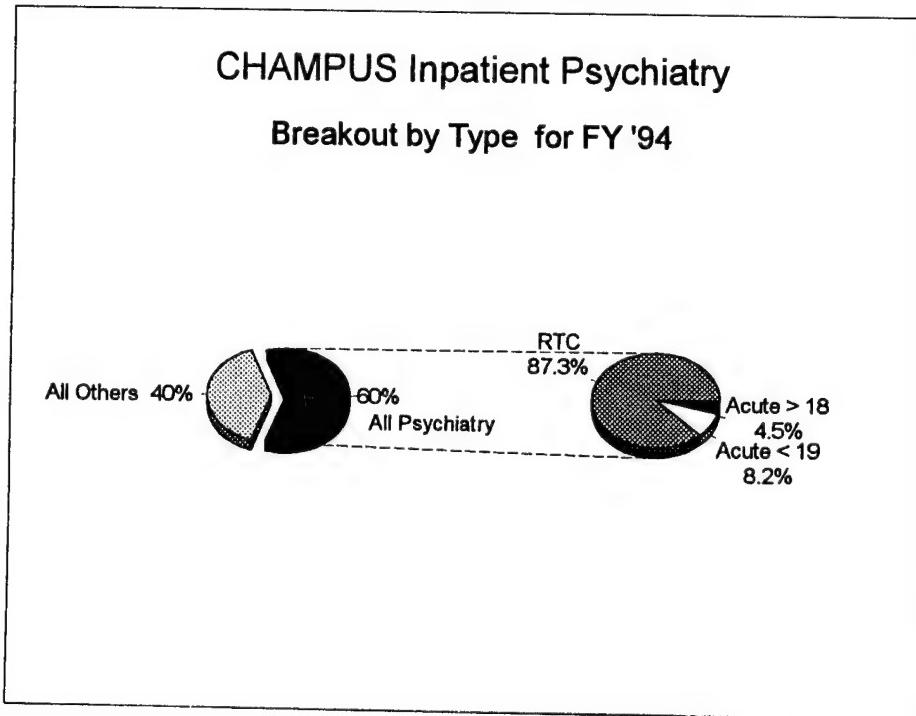


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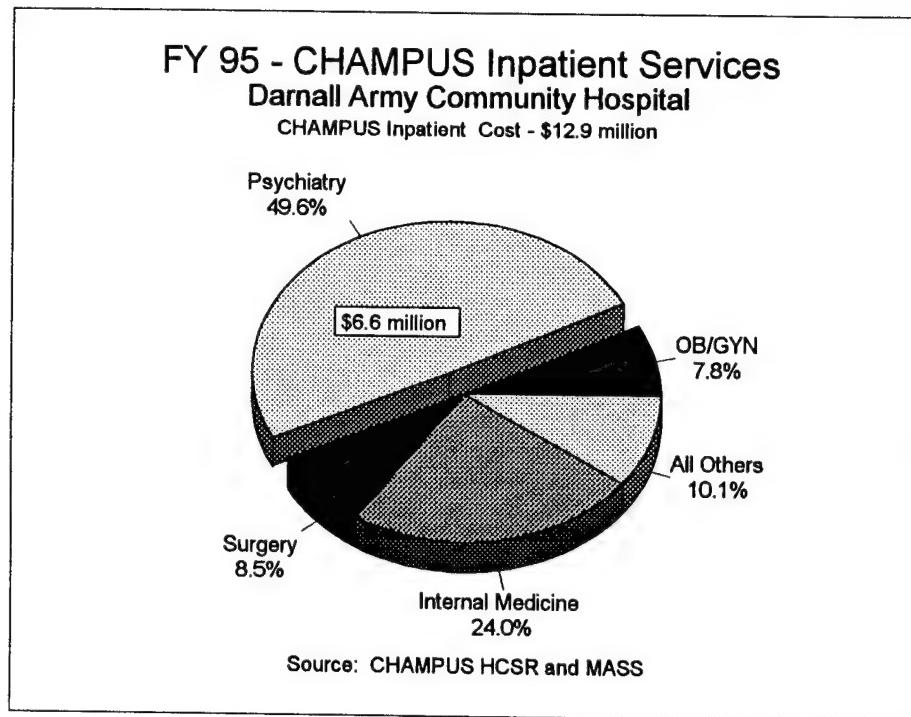
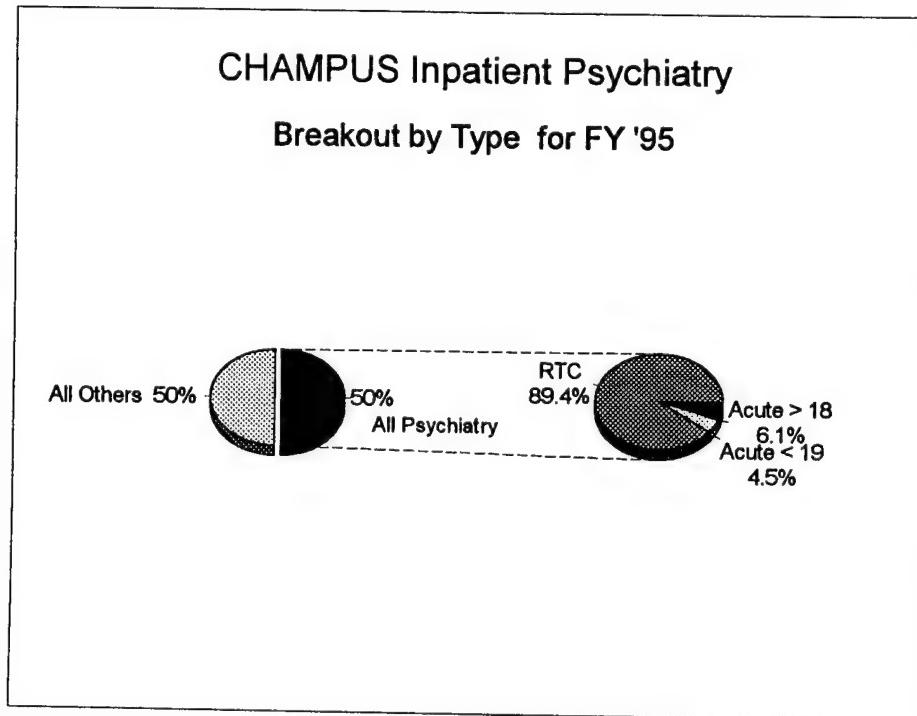


Figure 19.



Over a period of several years a managed healthcare system has continued to develop and in 1994 evolved to a regional catchment area management system known as a Regional Medical Command (RMC) (formerly known as a Health Service Support Area). Fort Hood is located in the Great Plains Regional Medical Command (GPRMC).

Statement of the Problem

This paper is a study to determine the impact of managed care theories and practices on the formation and development of regional mental health services for Darnall Army Community Hospital and the GPRMC. In August 1991, DACH expanded its mental health program and opened a contractor-operated inpatient psychiatric ward. Table 3 shows that by the end of fiscal year 1992 there was an annual cost savings of \$5.6 million and by 1993, \$9.2 million CHAMPUS dollars were saved relative to a fiscal year 1990 baseline. The savings were the costs associated with the number of inpatient admissions, as well as improved utilization management of inpatient psychiatric care. (Laird, Management Analyst, Darnall). Several programs, inpatient and outpatient, have been developed since then to meet the needs of the soldiers and beneficiary population of Fort Hood. As behavioral health services have evolved, a managed care model has developed to utilize and evaluate resources. Concern is whether costs can be reduced while increasing patients access to quality care. As barriers to care such as co-pays for use of standard CHAMPUS, unavailability or poor access to primary care appointments, and the social stigma of mental health problems are removed will this overwhelm the healthcare system? These factors coupled with removing the civilian provider or institution's profit

incentives should result in reduced costs.

Table 3--CHAMPUS Inpatient Psychiatry Savings (in millions)

	FY 90	FY 91	FY 92	FY 93	FY 94	FY 95
* Total Psych Inpatient Cost	\$20.3	\$19.4	\$14.7	\$11.1	\$11.6	\$9
Savings this FY	N/A	\$.9	\$4.7	\$3.6	-\$5	\$2.6
Savings relative to FY 90	N/A	\$.9	\$5.6	\$9.2	\$8.7	\$11.3
% Decrement this FY	N/A	4%	24%	24%	-5%	22%
% Decrement from FY 90	N/A	4%	28%	45%	43%	56%

Source: CHAMPUS Health Care Summary Report

* These figures include DACH CHAMPUS costs and in-house contractor costs

Literature Review

McKelvey stated in his 1988 study that the current system of mental health care was not a system, but rather a patchwork of confusing and independently operated and unconnected subsystems (McKelvey, 1988, 870). He called for a community-based continuum of child and adolescent mental health care that would ensure integrated, appropriate, and cost-effective treatment; the building blocks of a managed care model. McKelvey described the elements of a community-based continuum, a model demonstrated by a training site for child psychiatry for Baylor College of Medicine. A case study was cited that illustrates the programs and treatments and the decision process that doctors, therapists, and patients must make to ensure appropriate care.

H.G. Whittington, in discussing the clinical myths and imperatives of managed mental health, stated that research proves that the most effective treatment for the consumer is not the most cost beneficial to them or to the providers (Feldman, 1992, 223). Results of the scientific literature included the findings that biopsychosocial interventions are effective; there is no general superiority of prolonged and expensive intervention over brief affordable ones. Hospitalization, still very popular, is not always effective and can be dangerous, while biological treatments are generally effective and have been successfully used in conjunction with psychosocial interventions. Managed care is generally better than unmanaged treatment; fixed ideas about managing the utilization management of mental health and substance abuse are wrong and counter productive; and finally, managed care can be approached scientifically to maintain quality, control access and contain costs.

Whittington discussed eleven myths surrounding mental health that he felt weakened the structure of the foundation of the mental health system (Whittington, 1992, 224). Some of the myths are: *Psychotherapy is a moral hazard*, data does not support this; *Primary care physicians make good gatekeepers* - not in the field of psychiatry and there is data which shows that HMOs discourage self-referral for mental health services; *The treatment of substance abuse requires a fixed length of inpatient treatment*, mental health professionals are changing this; and *Mental health is unmanageable*, the argument is made that mental health is easier to manage than the "more" scientific medical care.

Feldman discussed several reasons for the shift to managed mental healthcare (Feldman, 1992, xi). First, interims of a shift in treatment practices; from inpatient to outpatient and the concern that treatment was often influenced by financial rather than the

clinical needs of patients. Second, government deregulation allowed medical facilities to be built or to expand without requiring a certificate of need which led to an overbuilding of psychiatric inpatient facilities. Third, the declining rate of occupancy in general hospitals; there existed the opportunity to make a great deal of money from the private sector payers with the increase of inpatient psychiatric beds. The hospitals had created a “cash cow” market and investors and governing bodies intended to make money in the mental health market. Lastly, there were large numbers of wealthy investors who sought large returns in the psychiatric and substance abuse facilities, made even more popular by well-publicized treatment of celebrities in mental health facilities.

The greatest contributors to the development of managed mental health plans have been the ethical service providers, practitioners, and facilities. The treatment plans that were a proverbial gold mine with extensive lengths of stay and exorbitant costs, led to a self-governance of the business to clean up its reputation. However, the mental health field is made up of undefined boundaries between provider expertise, variable technology, uncertain relationships between diagnosis and treatment needs, and unclear success criteria which allows its participants a wide range of discretion to practice medicine (Feldman, 1992, xiii).

A process is needed to make the services more honest, and managed care, if done properly, will help neutralize the power of financial interests. Several factors stimulated the growth of managed mental health, according to Feldman: (1) provider behavior; to do the right care at the right time and neutralize financial interests in treatment, (2) the stigma of utilization of mental health services from one of a quiet, personal event to one of social

acceptance, (3) “no-fault” - biopsychosocial - people are more likely to seek help if they feel that problems may have a physiological cause; it relieves the guilt, (4) threat to this is “over promise” on the part of competition - can they fulfill the access to health care at the price they want to pay, (5) and managed mental health can improve quality, reduce inappropriate costs, and ensure access by protecting mental health benefits (Feldman, 1992, xiii).

Anderson and Berlant discussed key treatment principles in relation to specialized managed mental health and substance abuse treatment (Kongstvedt, 1995, 150).

Utilization management, instituted in the 1970s and 1980s, influenced the development of specialized mental health plans. Utilization management can be defined as techniques used to manage health care costs by assessing the appropriateness of care prior at several stages in the patient’s care and treatment (Mechanic, Schlesinger and McAlpint, 1995, 20).

Studies have shown that utilization management greatly impacts inpatient days and outpatient visits and have been the impetus behind the movement to day treatment programs. As this is a relatively new change to treatment, outcome studies continue to be conducted to assess the quality of care. There are two general categories of utilization management: utilization review and case management.

Utilization review focuses on the third party, a critical component in managed care, to review and determine the medical necessity for treatment (Feldman, 1992, 214). This is usually made for a particular level of treatment or a certain procedural intervention and depending on the organization, reviewed by registered nurses using standardized nationally approved criteria, such as Interqual.

Case management includes four overlapping components: promoting correct diagnosis and effective treatment, promoting efficient use of resources, preventing recidivism, and monitoring for and containing substandard care (Anderson and Berlant, 1995, 154). By conducting concurrent review, case managers can determine the appropriateness of care before as it is provided; to determine whether it is "medically necessary and appropriate." (Talbot, et al, 1992, 102). Case management has been key to the success of program management. The minimal investment of hiring an individual, usually a registered nurse, to oversee the appropriateness of inpatient care reaps large rewards. It is simply because someone is monitoring care combined with peer review standards and industry accepted utilization standards which are determined to be criteria that is accepted as standards for care.

Anderson and Berlant discuss four key principles of clinical treatment: alternatives to psychiatric hospitalization, alternatives to restrictive treatment for substance abuse, goal-directed psychotherapy, and crisis intervention. Alternatives to psychiatric hospitalization include partial hospitalization (nonresidential) programs. These varied programs include day, evening, and/or weekend nonresidential programs that have been studied and found to be effective treatment alternatives to inpatient hospitalization. Alternatives to restrictive treatment for substance abuse has not shown a definitive treatment plan for specific patient needs, therefore the less expensive plan is the one most sought after. Goal directed psychotherapy is supported as a treatment plan in special cases. Brief, goal-directed psychotherapy is an emphasis on interpersonal (a one-on-one relationship) instead of intraphysic (social context therapy, such as a residential living

arrangement) therapy and is designed to be brief and limited. Lastly, crisis intervention is used as an active part of the treatment plan. Research has demonstrated that short-term, intensive support during life crisis or acute episodes of psychiatric illness can be dealt with effectively to reduced or diminish the number of future crises and over utilization or inappropriate psychiatric care (Anderson and Berlant, 1995, 151).

Purpose

To determine the effectiveness of managed care on the formation and development of regional mental health services. This retrospective review will include the impact managed care principals have on the quality, access, and cost of comprehensive mental healthcare services on the CHAMPUS population.

The DACH Psychiatry “Gateway to Care” initiative began with the conversion of Ward 5 East from a 20-bed medical-surgical ward to a 20-bed psychiatric unit. The contract was written as an “at-risk, fixed-price” professional services contract and began services on 1 August 1991. It stated that in order to be accessible, high quality, and cost effective, (while minimizing psychiatric morbidity) the clinical services needed to include the military psychiatry precepts of Proximity, Immediacy, and Expectancy (PIE).

The concept under which the initiative was developed was expressed by military psychiatrists following the Korean conflict. The ultimate goal was to restore a soldier’s physical and psychological functions in order to return to duty, or combat, as soon as possible and mirrors managed care concepts. The PIE mnemonic includes principals that are applied in care and treatment of patients in our mental health facilities today.

Proximity means treating the patient geographically close to the development of symptoms, and not evacuating to medical centers, residential, or other tertiary care facilities. Immediacy means the patient should be treated as quickly as possible after symptoms develop, with resources readily available. Lastly, expectancy means treating the patient as normal, or as experiencing temporary symptoms of stress, which should remit with appropriate treatment, while emphasizing the expectation that there will be a full return to a normal premorbid functioning (Camp, 1994, 136). What is important to this concept is that the managers and providers of this system cannot fiscally benefit from any profit derived from providing unnecessary services or treatment. Otherwise, the patient's return to "normality/wellness" is biased by the incentive to "over" diagnose the patient, sometimes inappropriately, as sick and in need of longer-term treatments.

Recaptured CHAMPUS dollars, and the huge success realized are testimony to the savings that can occur simply by implementing a managed care program (see Tables 2 & 3). The program's success is attributed to three primary reasons, according to LTC (Dr.) David T. Orman, Chief, Department of Psychiatry, DACH, and Office of the Surgeon General Psychiatry Consultant. Access is easy and affordable to the patient because the patient comes into the free outpatient clinic before acute crisis develops or symptoms worsen. Military and contractor management personnel work close together to maximize clinical communication and handle problems constructively and expeditiously. Finally, decisions concerning hospitalization are done by psychiatric professionals who are "financially disinterested" in determining whether inpatient or outpatient care is required.

Since 1992 a network has developed to include the hiring of case managers,

expansion of the mental health agencies at Fort Hood, expansion of the family advocacy program, and streamlining the alcohol and drug rehabilitation program. In support of active duty soldiers, active duty psychiatrists (Mental Health Services) are assigned to the two divisions as well as two at the Combat Stress Center.

For the purpose of this study, social work services (SWS) data, as it is reported with mental health data, will be omitted. This is due to the implementation of the Family Advocacy Case Management Team (FACMT), otherwise known as the Family Advocacy Case Review Committee (FACRC), or as the Case Review Committee (CRC). This program, established in 1993, is becoming ever more important to soldiers, commanders, and families, and can be found at every major military installation. These advocacy groups have had an impact on outpatient care that formerly was sent out on CHAMPUS, e.g. marriage counseling, family counseling. Outpatient CHAMPUS numbers that have remained virtually the same do not reflect a reduction of care. Care was expanded, that otherwise might have never been treated, through an aggressive installation outreach program for family advocacy. There is no clear connection or relation to inpatient care. At Fort Hood, the contribution from social work services, went from zero to becoming a major player in behavioral health services. Consequently, SWS will be sliced out of the behavioral health services data in this project; the recent numbers would skew the data. This is because there was essentially no program in 1990 and now it is one of the largest in the Department of Defense.

CHAPTER 2

METHODS AND PROCEDURES

Smith and Gaumer evaluate mental health programs by reviewing several definitions of criteria which include, covered services; coverage limits; reimbursement strategies; authorized providers; managed care services; screening criteria; and administrative processes (Feldman, 1992, 169). The Darnall services can be evaluated using these criteria, some which will have benchmarking criteria, that is, a standard to which it can be evaluated against.

In analyzing cost and utilization data, the total cost equation, in-patient data can be factored into meaningful components with a basic equation of :

$$\text{Cost}_{\text{Total}} = \text{Eligibles} \times \frac{\text{Users}}{\text{Eligible}} \times \frac{\text{Units}_{\text{Service}}}{\text{Users}} \times \frac{\text{Cost}}{\text{Unit}_{\text{Service}}}$$

(Feldman, 1992, 173)

This equation is as important for the 3 factors determined in the equation as benchmarks than the solution of total cost, as it is a retrospective analysis. The first factor, *eligibles* includes the CHAMPUS beneficiaries within Darnall's catchment area. This number was extracted from the Defense Medical Information Systems (DMIS) and Regional Analysis Population System (RAPS) (see Table 1). The next factor in the equation compares the

number of *users* to those who are *eligible*. *Users* is defined as any individual who has used any type of mental health services. It is important to determine the use of the program, an average utilization, and whether the managed care program is restricting access. In fact it is important to increase access to care with managed care by decreasing barriers to care such as limited primary care appointments, inadequate appointment systems, and restrictive co-pays. The number of users is further distinguished by *units of service* or episodes of care, not just the number of inpatients. Episodes of care may be a combination of inpatient related care to include crisis intervention and individual and group therapy and RTC care. It could determine the effectiveness of treatment, especially if evaluated for a specific treatment of a demographic group such as adolescent and child psychiatry patients. Kongstvedt defines episodes of care as a patient-based analysis of the healthcare services into a defined event (Kongstvedt, 1993, 176).

It may be more useful to track the units of service provided and utilized by specific service, such as crisis intervention. Recidivism could be tracked, which is another indicator of care. For example, tracking the number of acute crisis patients and repeat admissions also helps to provide baseline data for the facility. The *units of service* per *user* factor gives a sense of the effects of managed care on utilization; showing the utilization after someone has entered the system.

Lastly, the *cost* per *unit of service* helps to understand the issues related to current costs of services in-house or negotiated through contracts. Using Feldman's formula with the 1991 CHAMPUS Health Care Summary Report (HCSR) and Medical Analysis Support System (MASS) data, the following could be used in the confirmation of costs.

Table 4.--Example Using Feldman's Formula

No. of Eligibles	= CHAMPUS-eligible population -- 85254 (Table 1)
No. of Users	= Number of admissions * -- 757
No. of Units _{Service}	= Episodes of care * -- 865
Cost	= Inpatient cost * -- 18956890

Example: Cost_{Total} = $85254 \times ((757/85254) \times (865/757) \times (18956890/865))$
 $19709192 = 85254 \times (.009 \times 1.14 \times 21916)$
\$19,709,192 V.S. \$18,956,890

*extracted from 1991 MASS data

This formula may be indicating that since the equation results are higher than the actual CHAMPUS cost that it is an efficient program. In comparison, 1995 data applied results in a difference from an actual total of \$6,594,412 versus the calculated \$6,285,068, possibly indicating a more efficient program or that the program is as efficient as it can be. It makes sense that variance is reduced as a managed care program progresses, and the systems and processes are streamlined. As a norm develops, the numbers should become more closely correlated.

This equation can look at overall care to our beneficiaries, or can be customized for gender, age, or eligibility category. In addition, the different treatment programs offered can be separated out to establish benchmarks within our system for care. This could be helpful in validating the cost of treatment in house, versus contracting for care. Cost is just one factor, the need to measure quality and access also enter into the managed care equation. An evaluation comprised of consistent and well defined data collection and analysis should be ongoing and reportable to all parties, practitioners, patients, and third party monitors. One serious concern in this analysis is that the CHAMPUS data comes from claims files and what is really needed is concurrent information that is more accurate,

thus more meaningful to "real-time" management.

Population data will be necessary to break out age groups and cost for care. DMIS will provide this information and can be accessed locally. Mental healthcare costs will be determined by specific criteria so that the variables remain consistent throughout.

An evaluation of the military data systems is inevitable in this research. A significant challenge is to review the many data bases that exist, compare the data that is collected, and determine the appropriate data base to use. In addition, different healthcare practices define procedures differently, such as the term *episode of care*. What constitutes an episode of care for CHAMPUS is not necessarily the same as other organizations.

Capturing the components of a visit and inpatient stay, professional and hospital costs, is necessary to get an accurate cost. The MASS report captures both of these costs.

Research Questions

Several questions arose while researching the CHAMPUS mental health program:

1. What is the cost of mental health per capita? One outcome measure of interest to the command and Chief, Department of Psychiatry, was to determine a cost per beneficiary for mental health which is depicted in Figure 20. This graph shows the per capita costs for both active duty soldier as well as the cost per eligible beneficiary. Application of managed care practices reduced the per capita cost for active duty soldier 62% from fiscal year 1990 to 1995. For the same time frame the cost per beneficiary dropped 58% to \$65.
2. As DACH expanded inpatient child and adolescent psychiatric services did CHAMPUS inpatient costs lower? Figure 21 shows DACH inpatient costs which include CHAMPUS

costs as well as the cost of the in-house contractor at Darnall. Figure 21 clearly demonstrates that as Darnall expanded services to provide CHAMPUS eligibles (child and adolescents) acute intervention and inpatient care, fewer patients required CHAMPUS hospitalization in facilities other than the DACH CHAMPUS ward.

Figure 20.

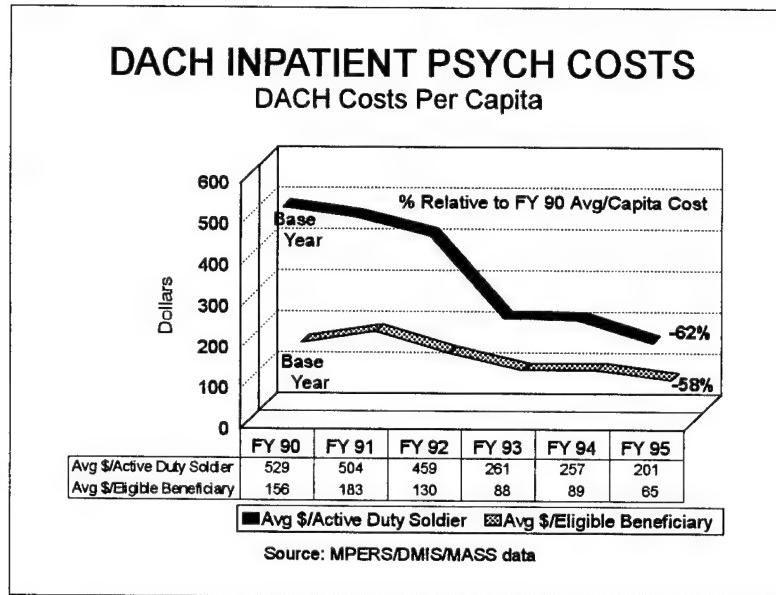
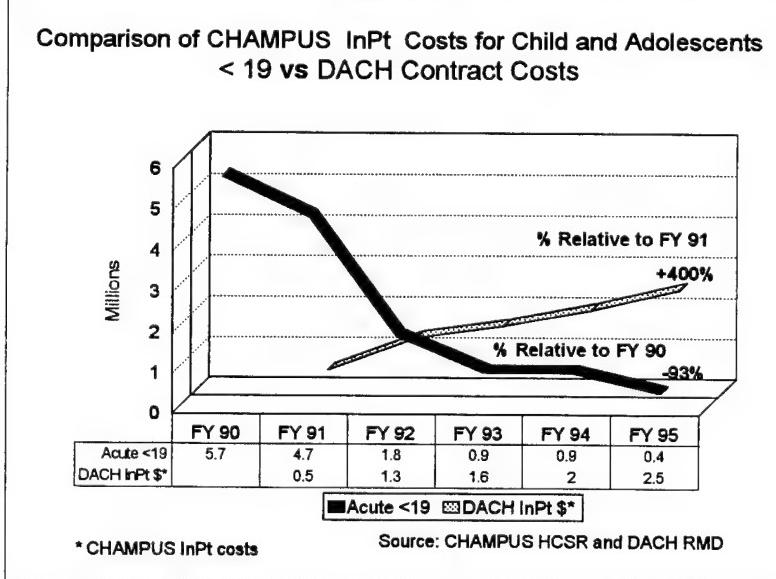


Figure 21.



Some patients were treated at Darnall where the inpatient costs for other than active duty saw a 66% reduction between 1990-1995. Figure 22 shows the biggest reduction from 1991 to 1993 - the first two years the contracted inpatient psychiatry ward opened at Darnall - a savings of 81%. It wasn't the availability of the inpatient ward alone that caused such a significant reduction of expenses; case management and utilization review also were contributors.

3. As access to DACH acute intervention and inpatient care and outpatient services increased, did CHAMPUS inpatient care and services decrease? Table 2 showed the CHAMPUS inpatient numbers of 1045 patients in 1990 had reduced to 337 inpatients by 1995, a 68% reduction. Interestingly, the average cost per psychiatry inpatient did not fluctuate very much, although it reached an all time high in 1992 of \$36,695 per patient and in two years returned to almost meet the 1990 cost and was \$19,568 per patient. The average cost per bed day increased slightly over the six fiscal years (14% from 1990 to 1995). Figure 23 shows a definite reduction in the per capita inpatient CHAMPUS costs as discussed before. Figure 24 compares the 54% reduction in inpatient costs with a 46% increase in outpatient CHAMPUS costs; reflecting the shift from inpatient care to outpatient care. At the same time the in-house services at DACH had implemented managed care, made the shift from inpatient to outpatient care, initiated day treatment programs and reduced bed days. In 1993 DACH increased the in-house staff by 2 child psychiatrists which also added to controlling the increase of outpatient CHAMPUS expenses. (Table 5).

Figure 22.

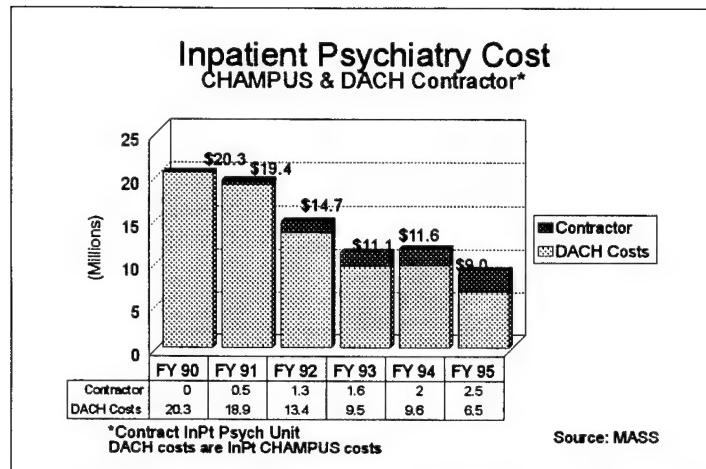


Figure 23.

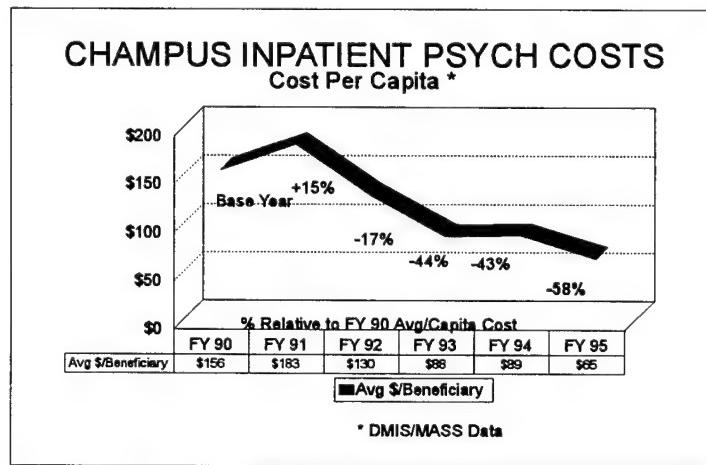


Figure 24.

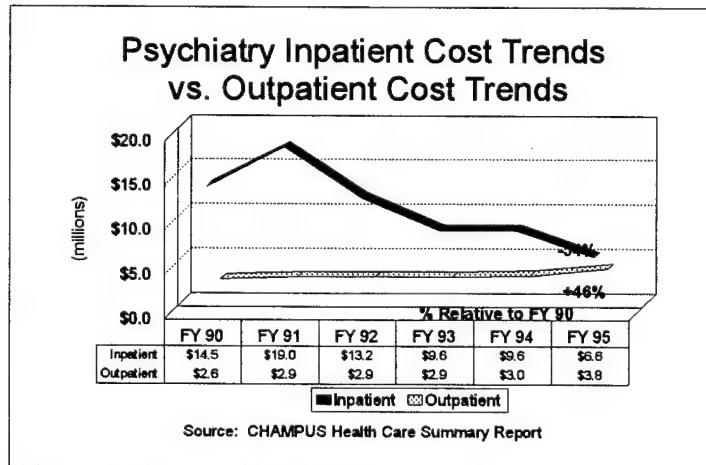


Table 5.--DACH CHAMPUS Inpatient Psychiatry Costs, Bed Days Per 1000, and Average Length of Stay compared to the National Capital Region (1993)

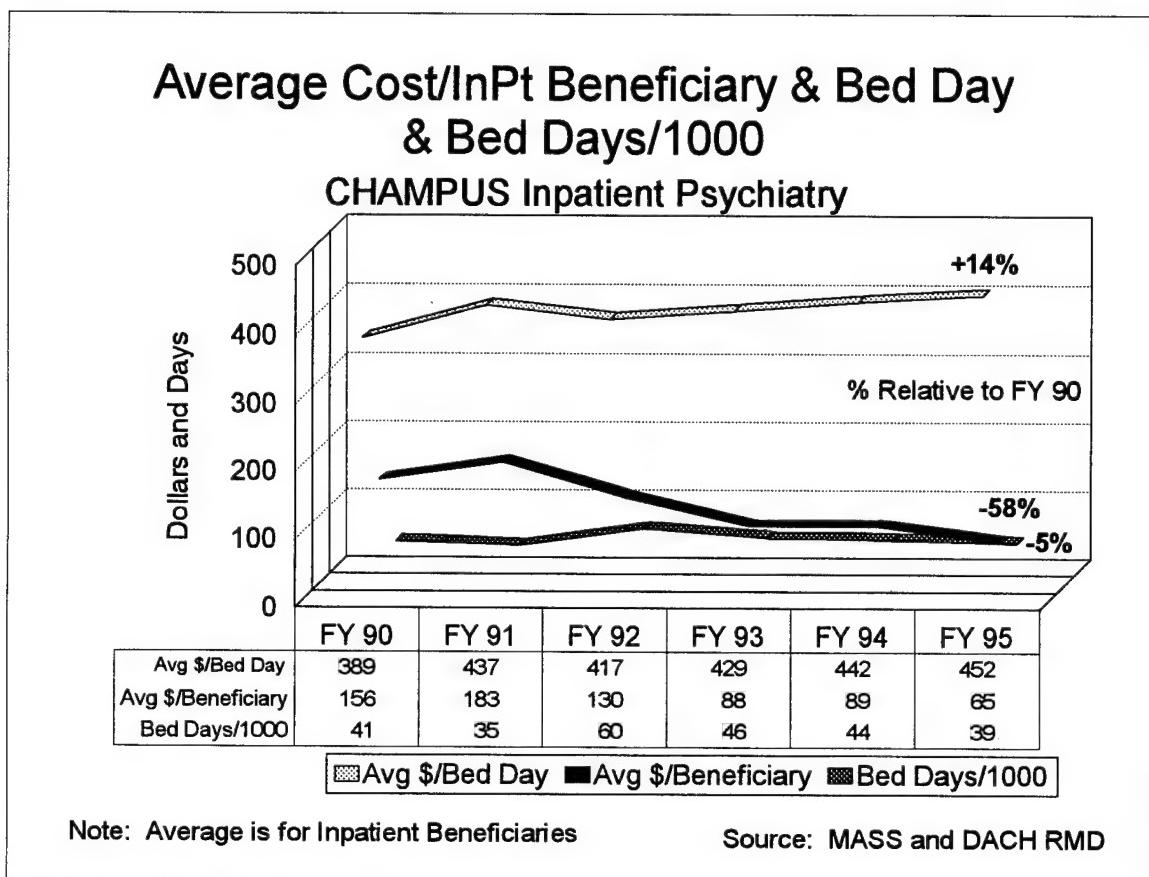
FY	Inpatient Cost per CHAMPUS Patient	Bed Days per 1000 Beneficiaries	Avg LOS (DACH Contract Ward)	Avg LOS (Standard CHAMPUS)
90	\$156	41	N/A	28.5
91	\$183	35	N/A	21.7
92	\$130	60	6.7	26.1
93	\$88	46	6.35	16.4
93*	\$645	101	N/A	19.9
94	\$89	44	5.72	11.8
95	\$65	39	4.47	8.7

* National Capital Region statistics

Source: MASS, Business Plan for Reengineering the Military Mental Health Care Delivery System in the National Capital Region

3. As outpatient services expanded, did inpatient bed days and costs decrease? Figure 25 shows that the inpatient cost per bed day for all ages for acute and RTC care varied slightly, from \$389 to \$452 in 6 years. Table 5 shows that the inpatient bed days per 1000 did not show a significant reduction. Costs per beneficiary reduced from \$156 to \$65, while the cost per bed day increased a modest 14% over the 6 year span. As care shifted to the outpatient setting, regardless of whether it was CHAMPUS or MTF provider care, it was less expensive to deliver the care. While bed days did not increase, the patient mix did change. Bed days that used to go out of the facility were recaptured to the CHAMPUS ward. As there was no financial incentive to hold patients, the contract was paid up front, care was provided and patients released.

Figure 25.



4. How has patient satisfaction be measured? The contract CHAMPUS ward conducts surveys with inpatients and parents of child and adolescent inpatients upon discharge. Results that could be obtained for the past 3 years show a less than 10 complaints per 100 patients. In addition, all patients are advised of patients rights and responsibilities when admitted to the ward in keeping with Joint Commission Accreditation of Healthcare Organizations standards.

In house records at Darnall's Patient Representative Office show that the Psychiatry service had 2 patient complaints for 1994 and 2 complaints for 1995. The CHAMPUS ward at DACH has a patient satisfaction survey completed by every inpatient, children as well as parents for the child/adolescent admissions. As a result of the patient satisfaction surveys, over the past 3 years, changes in the program have been made, and documented in quality improvement minutes (Chaparala and Miller, PHP, 1996). Patients and family members have been very pleased with the care received from the staff and have made constructive comments that have resulted in changes in patient treatment and care. Education for the patient has increased and and an improved patient handbook are just two examples of the results of the survey. The survey instrument has been revised as well and copies of the survey are in the Appendix to this paper. The survey has three sections: adult, child and adolescent, and family of the child or adolescent.

CHAPTER 3

RESULTS

This chapter presents data collected to complete an analysis of the past 6 years of CHAMPUS inpatient psychiatry. Major areas for analysis include demographics, total CHAMPUS costs, inpatient psychiatry costs, analysis of changes in inpatient costs, beds, and utilization.

Demographics are detailed in Table 1 and displayed in Figure 26. From October 1990 to September 1995 there was a 30% increase in overall population to the Darnall catchment area. The non-active duty dependents increased by 36% although the active duty population only increased by 17%. This substantiates recognized changes in the army today; more soldiers with families are entering the service. The over-65 population increased 50% over the past 6 years and while no longer eligible for CHAMPUS benefits, many have dependent family members who remain CHAMPUS eligible for several more years.

CHAMPUS psychiatry costs were drastically reduced over the last 6 years, 56% from fiscal year 1990 to 1995. Inpatient costs declined 66% although cost per beneficiary, and number of bed days per 1000 varied only slightly.

Evaluation Criteria

Developing evaluation criteria is essential to determining the effect of managed care on any healthcare program. Combining the theory of Smith and Gaumer (Feldman, 1992, 167) and the accepted metrics developed by Dr. Orman from the Darnall program, the following areas are presented for evaluating services.

A. Covered Services: CHAMPUS provides limited inpatient care. This includes residential treatment centers, outpatient care 2 times per week and inpatient psychotherapy that includes five inpatient visits per week. There are annual limits for inpatient mental health care depending on the age of the patient. Residential treatment facility care is covered for 150 days per year and must meet pre-admission criteria. Prescription use per age group (under 19 and over 18 to break out the child and adolescent care from adult care), and average length of stay (CHAMPUS HANDBOOK, 1994, 33).

B. Coverage Limit: Psychotherapy, provided as an inpatient or outpatient, is limited and can only be extended for payment beyond the covered sessions, with approval. Psychotherapy is limited to five psychotherapy sessions a week in the hospital, and require authorization for more than two psychotherapy sessions a week as an outpatient. All must be reviewed for medical necessity. If more than 23 outpatient sessions are needed, approval is required. All sessions must be for treatment of a mental disorder that has a medical diagnosis. The biggest change in inpatient care was the fact that in 1991 Darnall opened a contract operated CHAMPUS-eligible inpatient ward. At the same time the practice of retroactive authorization was limited. The Darnall contract ward staff, as all other inpatient facilities, needed pre-certification prior to admission.

Metric: Concurrent review to monitor for appropriate care and treatment.

C. Reimbursement Strategies: For CHAMPUS care the two biggest changes in reimbursement came with the mandatory pre-certification and reimbursement for partial hospitalization. Still, inpatient subsistence which the service member must pay can be an economic burden.

Metric: Concurrent review to monitor case management and trend lengths of stay and costs per episode of care.

D. Authorized Providers: Licensed psychiatrists, psychologists' and clinical social workers.

Metric: Provider mix per beneficiary population, credentialing standards and review boards.

E. Managed Care Services: Case management, if in place, will optimize this service by conducting pre-admission, concurrent, and outpatient review. Also provider and facility profiling to assess patient care trends is helpful in reviewing managed care practices.

Metric: Inpatient psychiatry cost per capita, cost per inpatient bed day per capita (utilization rate for the population to determine access), bed days per 1000,

F. Screening Criteria: According to Health Management Strategies International, Inc. which is the standard for DoD facilities for all mental healthcare utilization review in both the direct care and CHAMPUS settings. First the severity of illness must be determined, criteria is specified in each level of care. Severity of illness offers the following categories: psychiatric acute, residential treatment, psychiatric partial

hospitalization, outpatient treatment, acute medical management of detoxification and overdose, inpatient substance use rehabilitation and partial hospitalization substance use rehabilitation services (HMSI, 1995).

Metric: Utilization review for appropriateness of determination of level of care.

G. Administrative Processes: Training the staff in the processes and measurement of managed care programs is necessary in order to demonstrate measurable improvement to patient and patient care processes. Effective information programs assist in recording and tracking data, developing data bases for analysis, and processing information.

Metric: The ability of the staff to accesses and process information with automation hardware and software programs. Usable reports that allow management to make decisions about the effectiveness of care and access to care. Several data bases were accessed for information. For demographic and population data the Defense Medical Information System (DMIS) provided population numbers and specific demographic information. Medical Analysis Support System (MASS) data provides inpatient (acute and RTC) care in the civilian CHAMPUS approved facilities. The Regional Analysis Population System (RAPS) provides demographic population figures.

Discussion

The following figures 27-32, show the inpatient psychiatry costs and breakout by age and treatment. Reference is also made to figures 8-19.

In 1990 inpatient psychiatry accounted for 61% and \$14.5 million dollars of the government's portion of a \$24 million dollar CHAMPUS bill. According to the

CHAMPUS Health Care Summary Report (HCSR), patients paid \$953,993 of personal costs for care. The inpatient psychiatry costs break out to 26% and \$5.7 million dollars for acute care under the age of 19 years 9% and \$2.3 million dollars for acute care over 18 years, and the remaining 65% or \$12.3 million dollars for regional treatment facility (RTC) care. Although the fewest numbers, RTC incurred the highest cost; \$59,500 was the average cost per episode of care.

In 1991 inpatient psychiatry escalated to 74% or \$19.8 million dollars of a \$26.8 million dollar CHAMPUS bill. Beneficiaries paid \$901,840 for care. Inpatient psychiatry costs break out to 25% or \$4.7 million dollars for acute care under the age of 19 years, 16% or \$3 million dollars for acute care over 18 years, and the remaining 59% or \$11.2 million for RTC care. RTC average cost was \$52,000 per patient per episode of care.

With the initiation of the DACH managed care psychiatric program in 1992 inpatient psychiatry decreased to 59.2% or \$13.2 million dollars of the government's \$18.4 million dollar CHAMPUS bill. CHAMPUS beneficiaries paid \$515,719 for inpatient care. The inpatient psychiatry costs were 11% or \$13.2 million dollars for acute care under 19 years, 6% or \$400,000 for acute care over 18 years, and the remaining escalating 83% and \$11 million dollars for RTC care. RTC average cost rose to \$56,600 per patient per episode of care. Of particular notice is the fact that 29 children cost an average of \$131,500 each.

In 1993 inpatient psychiatry decreased to 49% and \$9.6 million dollars of the government's \$17.8 million dollar CHAMPUS bill. CHAMPUS beneficiaries paid \$407,999 for inpatient care. The inpatient psychiatry costs were 9.5% and \$900,000

dollars for acute care under 19 years, 4.2% and \$400,000 dollars for acute care over 18 years, and 86% and a reduced \$8.2 million dollars for RTC care. RTC average cost reduced to \$49,000 per patient per episode of care.

In 1994 psychiatry increased to 60% or \$9.6 million dollars of the government's \$26.5 million dollar CHAMPUS bill. Beneficiaries paid \$506,335 out of pocket for inpatient care. The inpatient psychiatry costs break out to 8% and \$900,000 million for acute care under the age of 19 years, 5% and \$500,000 million for acute care over 18 years, and the remaining 87% was now only \$8.2 million dollars for RTC care. RTC average cost reduced further to \$40,000 per patient per episode of care.

In 1995 inpatient psychiatry costs were 50% and \$6.6 million dollars of the government's \$12.9 million dollar CHAMPUS bill. CHAMPUS beneficiaries paid \$365,865 for inpatient care. The inpatient psychiatry costs were 5% and \$400,000 for acute care under 19 years, 6% and \$300,000 dollars for acute care over 18 years, and the remaining escalating 89% and \$5.9 million dollars for RTC care. RTC average cost declined to \$34,000 per patient per episode of care.

Figure 27.

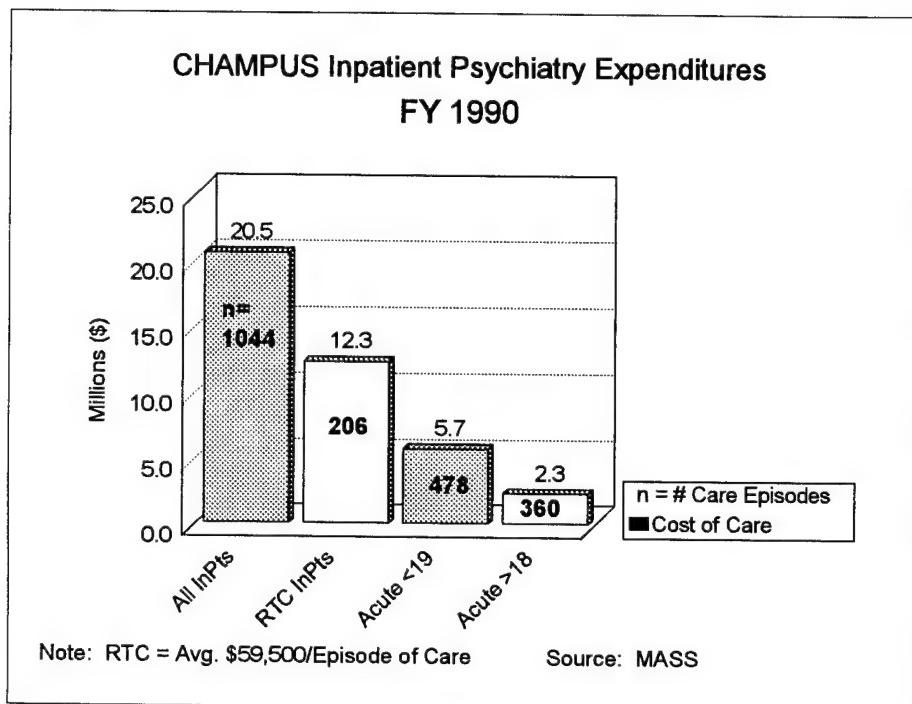


Figure 28.

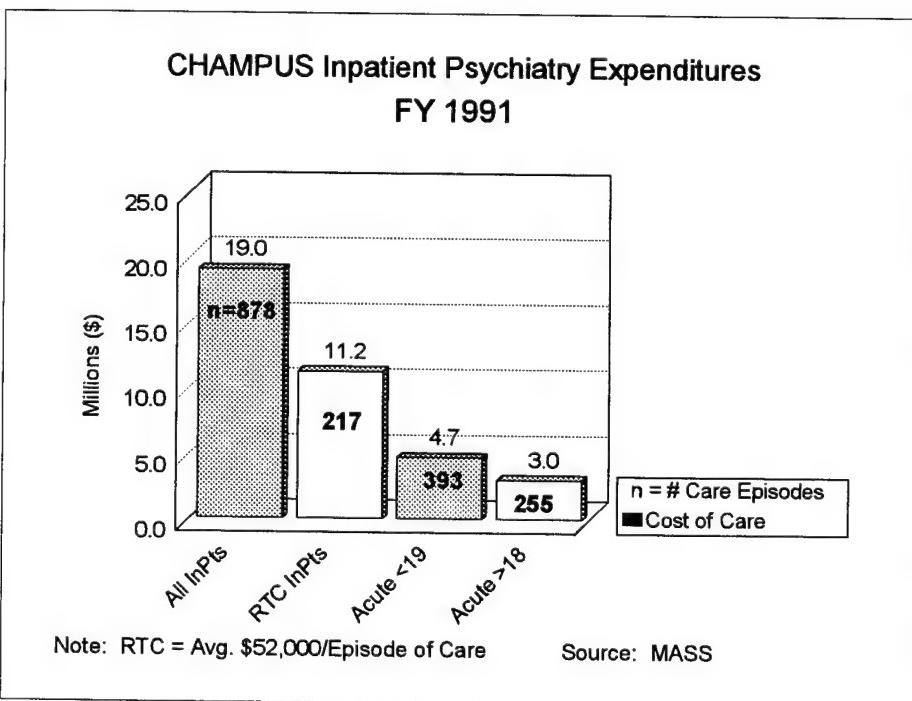


Figure 29.

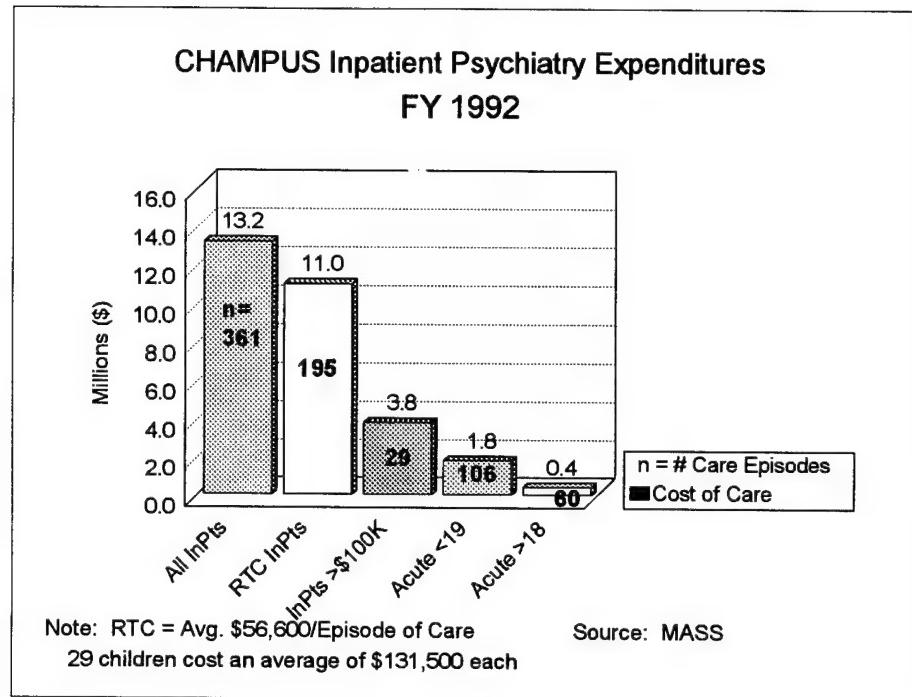


Figure 30.

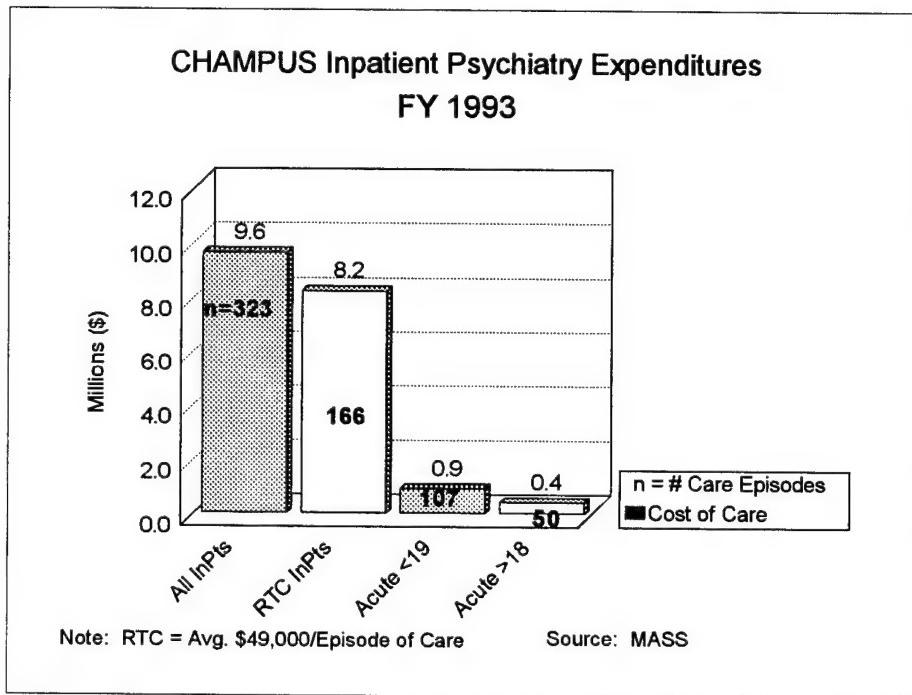


Figure 31.

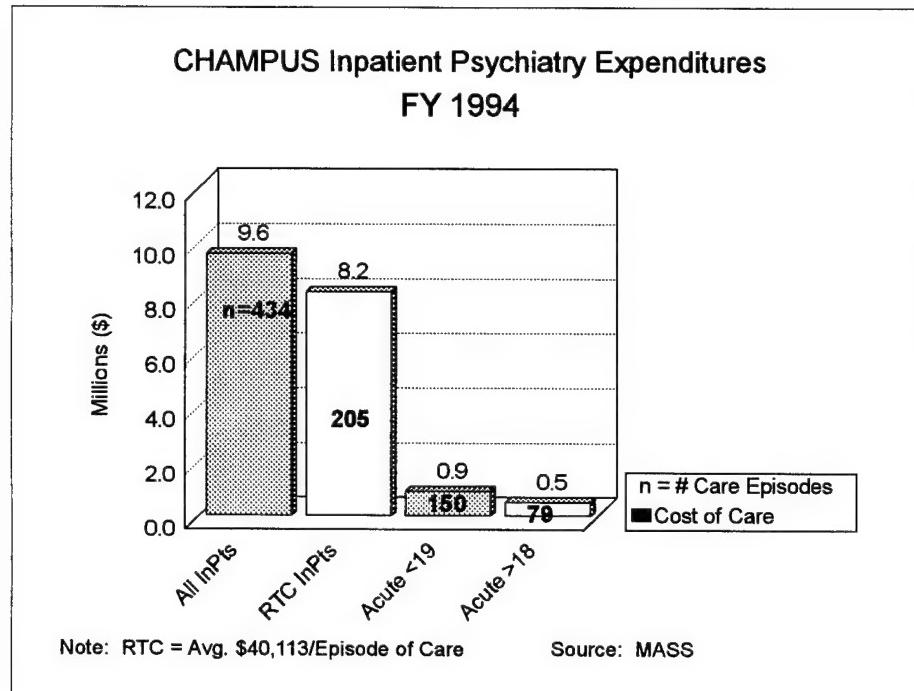
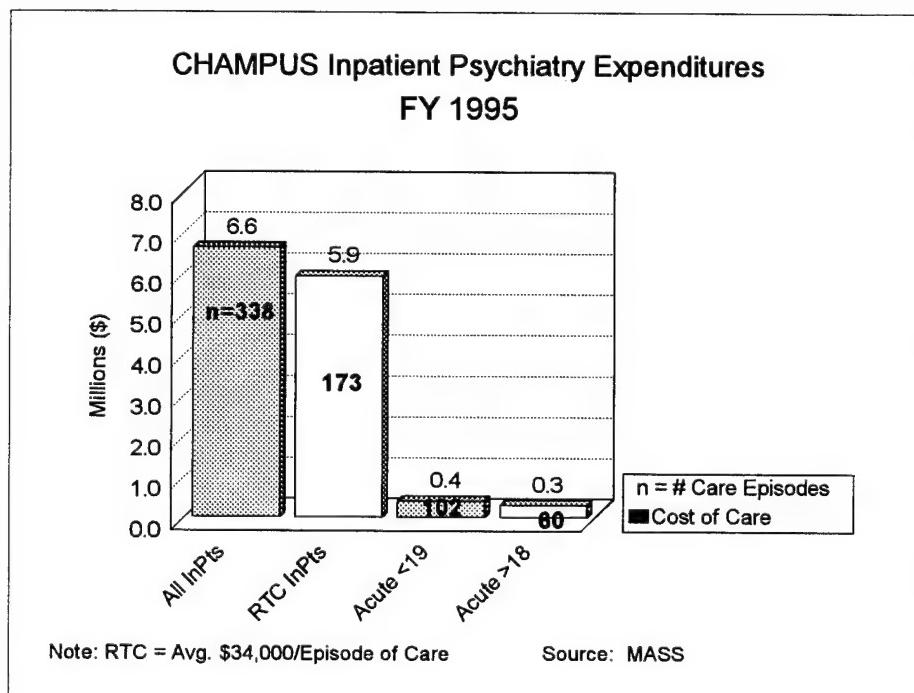


Figure 32.



CONCLUSION

This retrospective study clearly shows the significant impact that managed care practices have had on the success of the mental health recapture program and the development of the behavioral health services at Fort Hood. The savings realized are proof of the successful application of case management and utilization review for care of CHAMPUS beneficiaries. The study demonstrates that increased access to mental health services did not overwhelm the system but streamlined while expanding the access to care. Because access was increased while assessment and treatment was restructured - quality of care remained high.

The CHAMPUS psychiatry savings at DACH more than paid for the contract costs of the in-house CHAMPUS eligible ward. Removing the profit incentive for healthcare providers and systems added to the legitimacy of the mental health program. Surprisingly, outpatient care did not show a significant increase as inpatient care decreased. The change in treatment styles and practices and expanded medical resources resulted in a more effective mental health program.

Bed days per capita did not increase but the patient mix did which kept the bed days fairly consistent. By changing the patient mix to more crisis intervention and resolution and admitting patients to the contracted ward at DACH more patients were treated. All provider and institutional incentives were removed from the system, as the contractor's cost was paid up front. Patient bed days dropped dramatically, more appropriate care provided, and dollars saved.

Managed care has significantly reduced the cost of psychiatry services per capita

and per inpatient beneficiary. The expansion of the mental health program resulted in lower inpatient CHAMPUS costs and only a slight increase of outpatient costs. As psychiatry blended with social work services a different type of program developed and individual and family services were better served in the community. The behavioral health services emerged to better service soldiers, family members, and other eligible beneficiaries of the military health system.

Appendix

PATIENT NAME _____**DATE** _____**PATIENT EVALUATION**

(ADULT)

The goal of PIP CARE Unit is to provide our patients with the highest level of quality care and services during hospitalization. Please take a few moments before leaving to share your thoughts, feelings and/or concerns about the effectiveness of our program, and suggestions for improvement.

1. How effective was your admission process handled? Please
Comments _____

2. What additional information would have been helpful to you prior to your admission? _____

3. Was the Patient Handbook helpful in providing information about our unit? _____

4. Please circle those program activities that you found to be the most beneficial.
Discussion Groups Education Packets
Education Groups Family Program
Family meetings 1:1 With Staff
Why? Please Explain _____

5. Was your hospitalization handled in an efficient and courteous manner?
Comment _____

6. In what way/s did the Nursing Staff assist you during your hospital stay?
Comments _____

YES NO

7. In your opinion, did this hospitalization have a beneficial outcome for the patient and his/her family? Please explain.

COMMENT: _____

8. In your opinion, what aspect of the care/services provided was the MOST helpful? Please explain.

COMMENT: _____

9. Describe your thoughts regarding the present Discharge Plan/recommendations.

COMMENTS: _____

10. Please share your compliments, complaints and/or suggestions about the CARE Unit.

COMMENTS: _____

THANK YOU!

PHYSICIAN EVALUATIONYES NO N/A

1. The initial assessment by my physician was performed in a timely manner. _____
2. My physician treated me with courtesy and respect. _____
3. My physician explained my diagnosis and treatment recommendations to my understanding. _____
4. My physician discussed with me, information about my medications and possible side effects. _____

COMMENTS:

SOCIAL WORKER EVALUATIONYES NO N/A

1. My Social Worker met with me individually. _____
2. My Social Worker was actively involved in my plan of care during the;
 - (a) Initial Care Plan Meeting - ICP _____
 - (b) Family Meeting _____
 - (c) Master Care Plan Meeting - MCP _____
3. My Social Worker assisted me by providing information on available resources for continued follow-up care after my discharge. _____

COMMENTS:

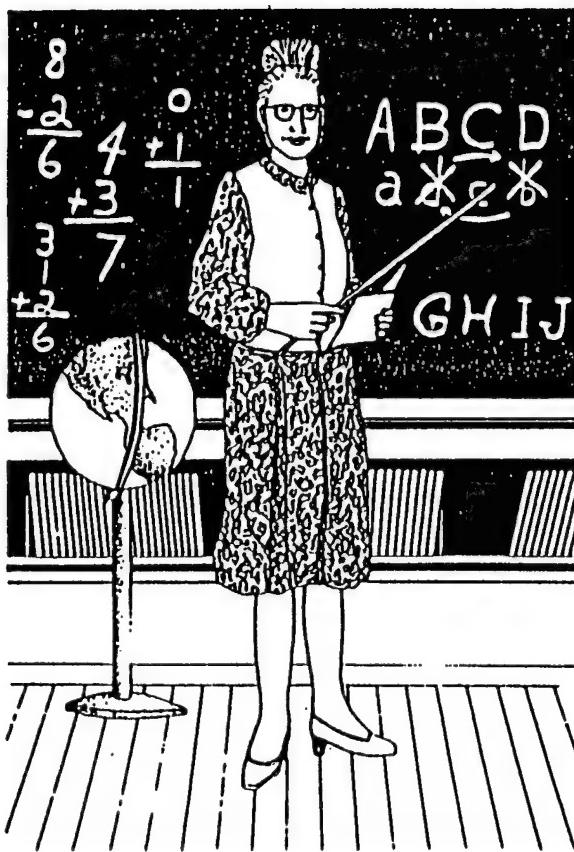
PATIENT NAME _____

DATE _____

55

PATIENT EVALUATION

(ADOLESCENT)



GIVE US A GRADE

"GRADE US": A = EXCELLANT!

B = VERY GOOD

C = GOOD

D = FAIR

E = POOR

F * FAIL!

The staff of PHP CARE Unit
are interested to know how
you feel about your hospital
stay. Please take a moment
to "GIVE US A GRADE", and
share any comments and/or
suggestions on how we can
improve our treatment ser-
vices.

5. GIVE US A GRADE FOR:

Teaching you about your illness/problem..... A B C D E F

Assisting you to make changes in how you
cope with your problems..... A B C D E F

Teaching you how to take better care of
yourself..... A B C D E F

6. GIVE US A GRADE FOR TEACHING YOU ABOUT YOUR MEDICATION:

Reason for taking medication..... A B C D E F

How to take the medication..... A B C D E F

What to expect from the medication..... A B C D E F

7. GIVE YOURSELF A GRADE FOR:

Complying with unit rules/policies..... A B C D E F

Participating in your plan of care while
you were here in the hospital..... A B C D E F

Making an effort to improve your coping
skills and behaviors..... A B C D E F

Improving communication with family members.. A B C D E F

Completing assigned schoolwork as provided... A B C D E F

8. WHAT DID YOU LIKE MOST ABOUT YOUR EXPERIENCE AT THE PHP CARE UNIT?

Please Explain _____

9. WHAT DID YOU LIKE THE LEAST ABOUT YOUR EXPERIENCE AT THE PHP CARE UNIT?

Please Explain _____

10. ADDITIONAL COMMENTS: _____

THANK YOU !



FAMILY EVALUATION SURVEY

NAME _____

PATIENT'S PHYSICIAN _____

PATIENT'S SOCIAL WORKER _____

The goal of PHP CARE Unit is to provide patients with the highest level of quality care and services during hospitalization.

Family involvement and participation is a vital element in promoting a successful outcome for the patient, as well as for the family member/s. Your responses to the following questions will assist us to expand and improve the services and experiences that we provide to military families and retirees at DACH.

- | | <u>YES</u> | <u>NO</u> |
|---|------------|-----------|
| 1. Was the admission process performed in an efficient and informative manner? | — | — |
| 2. Were you provided with oral and written information about the CARE Unit's program and policies? | — | — |
| 3. Were your questions/concerns addressed to your satisfaction at the time of admission? | — | — |
| 4. Did the staff demonstrate an attitude of care, concern and respect? | — | — |
| 5. Was your meeting with the treatment team (Family Meeting) beneficial in clarifying problems/concerns experienced by the patient and/or family members? | — | — |
| 6. Was the sponsor's Unit helpful and supportive of the family's needs/problems during the patient's hospitalization? | — | — |

7. Please give the nursing staff a grade: (E-Excellant; VG-Very Good; G-Good; F-Fair; P-Poor)

	E	VG	G	F	P
A. Courteous & Helpful	5	4	3	2	1
B. Staff's effort to answer your questions and keep you informed.	5	4	3	2	1
C. Overall skill level of the nurses who cared for you.	5	4	3	2	1

8. Compliments/Complaints related to the Nursing Staff?
Comments
-
-

9. Please comment on the comfort level of the unit enviornment.
Comments
-
-

10. Were your spiritual needs adequately addressed?
Comments
-
-

11. How efficiently was your discharge handled?
Comments
-
-

12. What is your overall feeling about your recovery as a result of your participation in this program?
Comments
-
-

13. What is your understanding about your discharge/Aftercare Plan?
Comments
-
-

14. Please share any thought and/or suggestions that you have about the CARE Unit.
Comments
-

Bibliography

- Anderson, Donald F., and Jeffrey L. Berlant. "Managed Mental Health and Substance Abuse Services." In *The Managed Health Care Handbook*, edited by Peter R. Kongstvedt, 130-41. Gaithersburg, MD: Aspen Publications, 1993.
- Camp, Norman M., M.D. "Ethical Challenges for the Psychiatrist During the Vietnam Conflict." In *Military Psychiatry - Preparing in Peace for War*, edited by Franklin D Jones, Linette R. Sparacino, 136-37. Washington, DC: Office of the Surgeon General, Department of the Army, 1994.
- CHAMPUS Handbook*. Aurora, CO: OCHAMPUS, 1994.
- Chaparala, D. (MD) and C. Miller. PHP, Darnall Army Community Hospital, 21 June, 1996.
- Directorate of Resource Management. *Command Information Summary*. Fort Hood, Texas: Public Affairs Office, 1996.
- Feldman, Saul. *Managed Mental Health Services*. Springfield, IL: Charles C. Thomas, 1992.
- Geraty, R., J. Bartlett. "The Impact of Managed Behavioral Healthcare on the Costs of Psychiatric and Chemical Dependency Treatment." *Behavioral Healthcare Tomorrow* 3, no. 2 (Mar-Apr 1994): 18-30.
- Health Management Strategies International, Inc. *Mental Health Review Criteria, Version 3.0*. Alexandria, VA, 1995.
- Kongstvedt, Peter R. *Essentials of Managed Health Care*. Gaithersburg, Maryland: Aspen Publishers, 1995.
- Laird, Stephanie. Edited by Lisanne G. Gross. Managed Care Division, 10 January, 1996.
- McCarroll, James E., David T. Orman and Allan C. Lundy. "Clients, Problems, and Diagnoses in a Military Community Mental Health Clinic: A 20-Month Study." *Military Medicine* 158, no. 11:701 (November 1993): 701-06.
- McCarroll, James E., David T. Orman and Allan C. Lundy. "Differences in Self- and Supervisor- Referrals to a Military Mental Health Clinic." *Military Medicine* 158, no. 11 (November 1993): 706-07.

- McKelvey, Robert S. "A Continuum of Mental Health Care for Children and Adolescents." *Hospital and Community Psychiatry* 39, no. 8 (August 1988): 870-73.
- Mechanic, D., M. Schlesinger and D.D. McAlint. "Management of Mental Health and Substance Abuse Services: State of the Art and Early Results." *The Milbank Quarterly* 73, no. 1 (1995): 19-55.
- Moloney, Thomas W., and Barbara Paul. "The Consumer Movement Takes Hold in Medical Care." *Health Affairs*, no. 2 (Winter 1991 1991).
- Orman, David T. Darnall Army Community Hospital, August - June, 1995 -1996.
- Resource Management Division. Darnall Army Community Hospital, August - June, 1995-1996.
- Ryan, Carey, and Paul Sherman and Charles Judd. "Accounting for Case Manager Effects in the Evaluation of Mental Health Services." *Journal of Consulting and Clinical Psychology* 62, no. 5 (1994): 965-74.
- Schuster, James, and Edward Kern. "Changing Roles of Mental Health Clinicians in Multidisciplinary Teams." *Hospital and Community Psychiatry* 45, no. 12 (December 1994): 1187-89.
- "The Sleeper in Managed Care. 10 Charges Leveled Against Managed Mental Health Care." *Managed Care* 3, no. 10 (October 1994): 23-4, 26.
- Talbott, John A., Robert E. Hales. *Textbook of Administrative Psychiatry*. Washington, DC: American Psychiatric Press, Inc, 1992.
- Tommasini, Nancy R. "Private Insurance Coverage for the Treatment of Mental Illness Versus General Medical Care: A Policy of Inequity." *Archives of Psychiatric Nursing* VIII, no. 1 (February 1994): 9-13.
- TRICARE Region One. "Business Plan for Reengineering the Military Mental Health Care Delivery System in the National Capital Area." Washington, DC, June, 1996.
- Whittington, H.G. "Managed Mental Health: Clinical Myths and Imperatives." In *Managed Mental Health Services*, edited by Saul Feldman, 223-44. Springfield, IL: Charles Thomas, 1992.